EVALUATION OF THE JHPIEGO FOURTH COOPERATIVE AGREEMENT WITH USAID

POPTECH Report No. 97-098-054
August 1997

by
Laurel K. Cobb
Kelly O'Hanley
Gary D. Bergthold

Prepared for

U.S. Agency for International Development
Bureau for Global Programs
Office of Population
Contract No. CCP-3024-Q-00-3012
Project No. 936-3024

Edited and Produced by

Population Technical Assistance Project
1611 North Kent Street, Suite 508
Arlington, VA 22209 USA
Phone: 703/247-8630
Fax: 703/247-8640
E-mail: poptech@bhm.com

The observations, conclusions, and recommendations set forth in this document are those of the authors alone and do not represent the views or opinions of POPTECH, BHM International, The Futures Group International, or the staffs of these organizations.

TABLE OF CONTENTS

LIST OF ABBREVIATION v
EXECUTIVE SUMMARY vii

1. INTRODUCTION 1

1.1 Background 1

1.1.1 The Context of the JHPIEGO Cooperative Agreement 1
1.1.2 JHPIEGO's Fourth Cooperative Agreement 2

1.2 This Evaluation 3

1.2.1 Methodology 4

2. JHPIEGO'S ACHIEVEMENTS IN THE COOPERATIVE AGREEMENT 5

3. CAPACITY BUILDING, INSTITUTIONALIZATION, AND SUSTAINABILITY 9

3.1 JHPIEGO's Definitions 9

3.1.1 Capacity Building 9
3.1.2 Institutionalization 11
3.1.3 Sustainability 11

3.2 The JHPIEGO Model: The Framework for Integrated Reproductive Health Training 11

3.2.1 Needs Assessments and Country Strategies 12
3.2.2 National Reproductive Health and Family Planning Service Guidelines 12
3.2.3 Pre-service and In-service Training 13
3.2.4 Service and Clinical Training Sites 16
3.2.5 Service Delivery Points 17

3.3 Institutionalization 17
3.4 Sustainability 19

3.4.1 Programmatic Sustainability 19

3.4.2 Financial Sustainability 20

3.5 Collaboration 21

4. TRAINING APPROACH AND MATERIALS AND INFORMATION TECHNOLOGIES 29

4.1 JHPIEGO's Training Strategy 29

4.1.1 The Training Approach 29
4.1.2 National Systems 30
4.1.3 Application of Mastery Learning 31

4.2 Training Materials Development 31
4.3 Quality of Materials 32
4.4 Electronic Information Technology Programs 33

4.4.1 Objectives of the Programs 33
4.4.2 The Present Status of the Program Components 34
4.4.3 The Quality of JHPIEGO's Information Technology Programs 35
4.4.4 Developments in the Information Technology Environment 36

5. MAXIMIZING ACCESS AND QUALITY OF CARE 39

5.1 JHPIEGO's Definition of Quality 39
5.2 Impact on Quality 40

5.2.1 Reproductive Health and Family Planning Service Guidelines 40
5.2.2 The Impact of Training on Quality 42
5.3.2 The Cadre of Participants 43

5.3 Impact on Access 44

5.3.1 Men's Access to Family Planning Services 44
5.3.2 Adolescents 44
5.3.3 Postabortion 44
5.3.4 Postpartum 44

6. MONITORING AND EVALUATION 49

6.1 JHPIEGO's Monitoring System 49

6.1.1 The System's Contribution to USAID's Results Framework 49
6.1.2 Usefulness for Management Decision Making 50

6.2 JHPIEGO's Research and Evaluation Programs 50

7. ORGANIZATIONAL AND MANAGEMENT STRUCTURE 55

7.1 Structure and Staffing 55

7.1.1 Congruence with Mission/Mandate and Strategies 55
7.1.2 Current Structure and Staffing 56

7.2 Financial Management 59

7.2.1 New System and Directions 59

8. SUMMARY OF FUTURE DIRECTIONS 65

8.1 Program Priorities 65

8.1.1 A Broader Mandate 65
8.1.2 A Country-specific Balance Between Pre-service and In-service Training 65
8.1.3 Compliance with Reproductive Health and Family Planning Guidelines 66
8.1.4 Other Technical Areas 66
8.1.5 Other Cadres 67

8.2 Preparedness over the Next Five to Ten Years 67
8.3 Enhancement of Capacity Building, Institutionalization, and Sustainability 67
8.4 Future Directions in Training 68
8.5 Monitoring and Evaluation 69
8.6 Management Decentralization 70

9. USAID 71

APPENDICES

Scope of Work A-1
Bibliography B-1
List of Contacts C-1
JHPIEGO's Revised Competitive Strategy D-1
HRM Matrix E-1
Using the Internet to Improve Reproductive Health Training F-1
JHPIEGO Information Technology Costs Summary G-1
JHPIEGO Corporation Organizational Structure H-1

LIST OF ABBREVIATIONS

APMS	automated program monitoring system
ARH	adolescent reproductive health
CA	cooperating agency
CAFS	Centre for African Family Studies
CBT	competency-based training
CEN	Central Asia
CMT	Communication, Management and Training Division, G/PHN/POP
COTR	contracting officer's technical representative
CTU	contraceptive technology update
DTC	District Training Center/NCTC-Indonesia
FHI	Family Health International
FHA/WCA	Family Health and AIDS in West and Central Africa Project/REDSO-WA
FP	family planning
FPMD	Family Planning Management and Development project
G/PHN/POP	Office of Population within the Center for Population, Health and Nutrition of the Global Bureau/USAID
HRD	human resource development
HRM	human resource management
HRD&M	human resource development and management
IEC	information, education, and communication
INTRAH	Program for International Training in Health
IP	infection prevention
IPPF	International Planned Parenthood Federation
ITO	Information Technology Office
JHPIEGO	Johns Hopkins Program for International Education in Reproductive Health
JHU	Johns Hopkins University
JSI	John Snow, Inc.
LAM	lactational amenorrhea method
MOU	memorandum of understanding
MOH	Ministry of Health
NCTN	National Clinical Training Network/Indonesia
NRC	National Resource Center/NCTC-Indonesia
OB/GYN	obstetrician/gynecologist
PAC	postabortion care
PAHO	Pan American Health Organization
PHN	Center for Population, Health and Nutrition/USAID
POGI	Indonesian Society for Obstetrics and Gynecology
POPTECH	Population Technical Assistance Project

PRIME	Primary Providers Training and Education in Reproductive Health
PTC	Provincial Training Center/NCTN-Indonesia
QAP	Quality Assurance Project
REDSO/EA	Regional Economic Development Support Office/East Africa
REDSO/WA	Regional Economic Development Support Office/West Africa
REDSO/WCA	Regional Economic Development Support Office/West and Central Africa
RH	reproductive health
SO	strategic objective
UNFPA	United National Family Planning Agency
USAID	United States Agency for International Development
UVI	unassisted visual inspection

EXECUTIVE SUMMARY

This report documents the evaluation of the fourth cooperative agreement between the Johns Hopkins Program for International Education in Reproductive Health (JHPIEGO) and the United States Agency for International Development (USAID). The current cooperative agreement, the fourth in a series of projects with USAID's Office of Population (G/PHN/POP), is a five-year project (1993 to 1998) with a central funding agreement value of $80,722,779; $59,586,754 was obligated through September 30,1996. Expenditures through June 30, 1997, total $47.7 million.

JHPIEGO's fourth cooperative agreement has five objectives. These objectives were established before the cooperative agreement was signed, but were later revised to help achieve the results identified by the Center for Population, Health and Nutrition (PHN), Bureau for Global Programs, Field Support and Research (USAID/G/PHN/POP). JHPIEGO works directly to support PHN's first *Strategic Objective* (SO): "*Increased use by women and men of voluntary practices that contribute to reduced fertility*." This SO has four intermediate results. Through the objectives outlined in the fourth cooperative agreement, JHPIEGO contributes to all four of these results. These objectives are as follows:

(1) Capacity Building. To establish the capacity of countries to train their own health care personnel to deliver quality family planning (FP) services, emphasizing long-term methods, through the development of national training systems (PHN *Result 1.3*).

(2) Direct Training. To meet specific short-term national family planning needs, especially in long-term methods, through the training of service providers (PHN *Result 1.4*).

(3) Maximizing Access and Quality of Services. To increase the access to and quality of reproductive health (RH) services by strengthening medical, training, and service protocols worldwide and to reduce medical barriers and training that limit access to FP (PHN *Result 1.4*).

(4) Training Technologies, Approaches, and Materials Development. To improve the effectiveness and efficiency of RH training materials (PHN *Result 1.1*).

(5) Technical Resources Development. To expand international RH training resources and systems through training of future FP trainers and leaders and through technical assistance to missions and others working in FP (PHN *Results 1.1, 1.3*).

To look to the future and for strategic planning, USAID stressed the following four purposes for this evaluation:

(1) To assess the extent to which JHPIEGO has accomplished the training objectives set forth in the cooperative agreement,

(2) To assess the effectiveness and efficiency of JHPIEGO's organizational and management structures,

(3) To assess the sustainability of JHPIEGO’s efforts in building national training systems to train health-care personnel, and

(4) To identify specific areas of RH training that JHPIEGO should emphasize under its next cooperative agreement.

As a result of the evaluation, the evaluation team had the following conclusions:

- JHPIEGO has been effective in achieving outputs;
- JHPIEGO has been responsive to USAID missions. With few exceptions, the missions have been very pleased with JHPIEGO's performance; and
- JHPIEGO has collaborated with host-country partners and other Cooperating Agencies (CA).

These are major successes, but JHPIEGO appears to be less efficient than desired in a competitive, resource-scarce environment, although the need for JHPIEGO to be efficient and competitive is greater than when the fourth cooperative agreement was designed. The fifth agreement between JHPIEGO and USAID will begin in a different environment than that of the fourth. The following conditions will exist:

- There will be more USAID field support funding and less core funding;
- USAID's reengineering efforts have led to a focus on program results and program impact;
- USAID's missions have less staff to manage activities. The missions are, therefore, looking for fewer CAs, each of which can do more; and
- CAs are operating in the field with broader programs than their mandates projected.

Within the context of this different environment, the evaluation team makes the following recommendations to promote both JHPIEGO's contribution to improved health in developing countries and the long-term institutional success of JHPIEGO itself.

Expand JHPIEGO's Mandate

The Population Office should expand JHPIEGO's mandate in the next cooperative agreement to that of clinical human resource development (HRD), focusing on improving the performance of clinical service providers. JHPIEGO would be directed to plan and implement clinical HRD in direct association with clinical service delivery problems. JHPIEGO's main activity would continue to be training, but with a greatly increased emphasis on pre-service training, complemented by other HRD activities as necessary, feasible, and appropriate. Those other interventions might include the following:

- Advising on medical, nursing, and midwifery school and college recruitment, including appropriate numbers and types of student; and

- Advising on medical, nursing, and midwifery school and college deployment, including the appropriate numbers and types of clinical graduates and service providers necessary for specific catchment areas, according to national service delivery guidelines.

There are two reasons for such a broader mandate. The first is to be responsive to USAID's missions and to acknowledge that, in response to the missions, CAs already implement broader programs—in some countries—than what is projected in their mandates. In the field, understaffed missions seek fewer CAs that are each capable of handling a broader range of responsibilities.

The second reason for an expanded mandate is to ensure that USAID's investment in HRD addresses, in the most effective and efficient manner possible, resolvable service delivery problems, such as access to competent, caring providers. Training, one potentially important HRD input, should be based (1) on a needs assessment of the human resource system under which providers are managed, and (2) on a plan to improve the development and management of human resources.[1] Through the Primary Providers Training and Education in Reproductive Health Project (PRIME), USAID has tried to ensure such a needs assessment and plan, based on a

[1] See Section 6.2 for the results of JHPIEGO's evaluation in Kenya illustrating the need for a systems approach. That evaluation revealed that three years after a group of physicians had been trained in minilaparotomy, only 14 of the 41 physicians interviewed were currently in job positions where they performed the services for which they had been trained. When asked about constraints to the provision of minilaparotomy services in their facilities, they reported, "not being in a job position to regularly perform the procedure, insufficient supplies, and lack of clients."

systems perspective. PRIME, however, does not work in every country, and in those countries where both JHPIEGO and PRIME are active, national HRD plans identifying JHPIEGO's role and activities within a systems perspective are not apparent. Such an HRD needs assessment and HRD plan should be the foundation of all significant investments in HRD development and management, regardless of which project undertakes the initial analysis and plan. Although a broader JHPIEGO mandate would lead to an overlap of JHPIEGO and PRIME's mandates, overlapping mandates does not mean overlapping activities. Each USAID mission, striving to achieve results within a limited budget, would presumably be highly motivated to select the appropriate CA based on performance—including collaboration—and costs.

Build Greater National, Regional, and Institutional Capacity and Institutionalization

JHPIEGO should strive to build the capacity of countries, regions, and institutions to provide clinical resource development without outside technical assistance; JHPIEGO should add this higher level of achievement to its benchmark hierarchy.

Promote Greater Sustainability

The fifth cooperative agreement should explicitly address the fact that JHPIEGO is operating in a resource-scarce environment: USAID is phasing down or out in many countries, program countries are poor and have a limited ability to support recurrent costs, and transferring costs to donors is unsafe. JHPIEGO should immediately address this lack of attention to financial sustainability by reaching consensus with USAID on the relative importance of financial sustainability in its programming and by developing a philosophy on financial sustainability, as well as indicators and benchmarks to measure it.

JHPIEGO should have both programmatic and financial sustainability as explicit objectives when it plans, designs, and operates, and it should incorporate sustainability planning into its current agreements. JHPIEGO should also launch all new agreements with an explicit discussion of programmatic and financial sustainability. JHPIEGO should avoid, to the extent possible, picking up recurrent costs such as salaries, rents, and utilities; in situations where it is currently covering these costs, JHPIEGO should immediately develop a phase-out plan for such subsidization with the relevant institution and USAID mission. Both national strategies and specific JHPIEGO agreements (Memorandum of Understanding [MOU]) with host-country institutions should clearly delineate (1) JHPIEGO's in-country costs supporting training systems and programs, such as salary supplements, travel and per diem, office expenses, and training models such as "Zoe;" (2) who will assume these costs when JHPIEGO ceases to fund them; and (3) a plan to reduce and transfer these costs.

JHPIEGO should use its creativity and ingenuity to develop state-of-the-art technologies, materials, and models that are functional, effective, and affordable without JHPIEGO's support.

Decide on a Country-specific Balance Between Pre-service and In-service Training

The balance between pre-service and in-service training should be decided on a country-specific basis depending on the country's needs assessment (service delivery issues such as quality, access, human resources, urgency of provider problem, educational and training resources, and stage of program development), the mission and host-country's plans and priorities, and the contributions of other CA's and donors.

Devote Greater Attention to Impact

JHPIEGO should expand its definition of quality of services beyond a definition that is limited to the process of providing services, to a definition that includes clinical outcomes, such as continuation rates, complication rates, client satisfaction, and acceptor rates (especially for targeted groups). This definition would lead to more strategic plans for improvement including, but not limited to, training interventions. JHPIEGO should then take the next steps: it should (1) routinely assess the impact of training on service and (2) work in collaboration with projects such as the Quality Assurance Project (QAP) to develop feasible strategies to monitor compliance with RH/FP service delivery guidelines in key service areas. Where noncompliance is noted, JHPIEGO should develop strategies to increase compliance.

JHPIEGO should continue to increase the proportion of its interventions directed toward nonphysicians versus physicians. As it is beginning to do with postabortion clients, JHPIEGO should use policy and advocacy strategically, combined with training, to increase access to services for postpartum and adolescent clients. Training for postpartum and postabortion IUD insertion should be considered.

Examine Other Technical Areas

Most USAID missions also expressed a desire for JHPIEGO to continue to maintain its focus "by sticking to the basics" of FP and to not lose its focus by taking on too many other RH issues.

USAID should evaluate the technical quality of JHPIEGO's electronic information programs and analyze these programs—with regard to overlap, redundancy, and costs—in relation to other electronic programs being developed or implemented by other CAs, donors, and foundations working in the health sector. JHPIEGO should:

- Wait until the results of that analysis are available before developing any new computer-assisted modules,
- Examine the assumptions underlying the ProTrain program to determine whether the program accurately estimates training needs,

- Continually monitor developments in the information technology field to take advantage of cheaper and more effective ways to deliver training information, and

- Implement information technology programs only when they can be shown to be effective and financially sustainable.

Maintain Preparedness Over the Next Five to Ten Years

In the FP field, technological changes come slowly and infrequently compared to some areas of RH such as assisted reproductive technology (e.g., in vitro fertilization). JHPIEGO is ideally positioned—given its primary affiliation with Johns Hopkins University (JHU) and its strong technical clinical leadership—to keep up with any technological changes that occur. JHPIEGO is, therefore, well prepared for new technological developments, areas of interest, and emerging conditions.

Decentralize

JHPIEGO should more fully decentralize—true delegation of authority—to regional offices, and from regional offices to any existing field offices. In line with JHPIEGO's broader mandate and in response to the needs of USAID's missions, JHPIEGO should open additional field offices—with delegated authority as previously described—where the volume of work and the level of funding permit.

1. INTRODUCTION

1.1 Background

1.1.1 The Context of the JHPIEGO Cooperative Agreement

In January 1994, the United States Agency for International Development (USAID) adopted an agency goal to stabilize world population and protect human health. To meet this goal, the agency adopted strategic objectives (SO). From these SOs, the Center for Population, Health and Nutrition, Bureau for Global Programs, Field Support and Research (G/PHN) developed the following four PHN SOs:

- ***SO 1***: Increased use by women and men of voluntary practices that contribute to reduced fertility;
- ***SO 2***: Increased use of safe pregnancy, women's nutrition, family planning (FP), and other key reproductive health (RH) interventions;
- ***SO 3***: Increased use of key child health and nutrition interventions; and
- ***SO 4***: Increased use of improved, effective, and sustainable responses to reduce HIV transmission and to mitigate the impact of the HIV/AIDS pandemic.

PHN's *SO 1* has four intermediate-level program results that help to guide programs and activities and allow the center to monitor progress:

- ***Result 1.1***: New and improved technologies and approaches for FP programs;
- ***Result 1.2***: Improved policy environment and increased global resources for FP programs;
- ***Result 1.3***: Enhanced capacity for public, private NGO, and community-based organizations to design, implement, evaluate, and finance sustainable FP programs; and
- ***Result 1.4***: Increased access to, quality of, cost-effectiveness of, and motivation for the use of FP, breastfeeding, and selected RH information and services.

The Communication, Management and Training Division (CMT) of the Office of Population (G/PHN/POP) focuses on *SO 1*. The CMT Division "works to build national training systems that will enable countries to train and support their own doctors, nurses, midwifes, community aides, traditional birth attendants, and others involved in reproductive health care" through its two

training projects: the Johns Hopkins Program for International Education and Reproductive Health (JHPIEGO), the focus of this evaluation, and the Primary Providers Training and Education in Reproductive Health Project (PRIME). In theory these two projects have different foci and training segments. As stated in the Scope of Work (SOW) for this evaluation, PRIME focuses

> on front-line health-care providers who reach clients with family planning and reproductive health at the community level. This includes nurses, midwifes, primary care physicians, traditional birth attendants, and other community-based health workers. JHPIEGO, on the other hand, focuses on training physicians (both general practitioners and obstetricians/gynecologists ([OB/GYN]), nurses, and midwives primarily in a clinic setting. Both JHPIEGO and PRIME work in pre-service and in-service training, but JHPIEGO places more emphasis on pre-service training than does PRIME.

Additionally, other projects in the Office of Population carry out FP/RH training. AVSC International, the Family Planning Service Expansion and Technical Support Project (SEATS), and Pathfinder (Family Planning Services) are the most relevant projects to JHPIEGO and they are the projects with which JHPIEGO most frequently collaborates. As envisioned by G/PHN/POP and stated in the SOW, "these projects provide training for discrete groups of providers in a particular service delivery setting. They are not focused on the development of sustainable training systems as are JHPIEGO and PRIME."

1.1.2 JHPIEGO's Fourth Cooperative Agreement

JHPIEGO is a non-profit corporation that works to improve the health of women and children in developing countries. JHPIEGO works to increase the number of qualified health professionals trained in modern RH and FP methods. Since its inception in 1973, JHPIEGO has trained more than 83,000 health professionals from over 5,000 institutions in 128 countries.

JHPIEGO's current cooperative agreement, the fourth in a series of projects with USAID's G/PHN/POP, is a five year project (1993 to 1998) with a central funding agreement value of $80,722,779; $59,586,754 was obligated through September 30,1996.[2] Expenditures through June 30, 1997, total $47.7 million.[3]

JHPIEGO's fourth cooperative agreement has five objectives. The objectives were established before the cooperative agreement was signed, but were later revised to help achieve the PHN

[2] Source: USAID

[3] Source: JHPIEGO

Results. JHPIEGO addresses all of PHN's intermediate results under *SO 1*. JHPIEGO's objectives (and their linkage to PHN Results) are as follows:

(1) Capacity Building. To establish the capacity of countries to train their own health-care personnel to deliver quality FP services, emphasizing long-term methods, through the development of national training systems (PHN *Result 1.3*).

(2) Direct Training. To meet specific short-term national FP needs, especially in long-term methods, through training of service providers (PHN *Result 1.4*).

(3) Maximizing Access and Quality of Services. To increase access and quality of RH services by strengthening medical, training, and service protocols worldwide and to reduce medical barriers and training, which limit access to FP (PHN *Result 1.4*).

(4) Training Technologies, Approaches, and Materials Development. To improve the effectiveness and efficiency of RH training materials (PHN *Result 1.1*).

(5) Technical Resources Development. To expand international RH training resources and systems through training future FP trainers and leaders and through technical assistance to missions and others working in FP (PHN *Results 1.1, 1.3*).

1.2 This Evaluation

USAID contracted the Population Technical Assistance Project (POPTECH) to conduct this final evaluation of JHPIEGO's fourth cooperative agreement. POPTECH, in turn, contracted a three-person consultant team composed of a team leader, the sustainability and management specialist; a practicing obstetrician/gynecologist (OB/GYN) with extensive experience in international FP; and a master trainer with extensive experience with JHPIEGO, medical education, and international FP programs.

The SOW for this evaluation had four purposes (see Appendix A):

- To assess the extent to which JHPIEGO has accomplished the training purposes and objectives as set forth in the cooperative agreement,
- To assess the effectiveness and efficiency of JHPIEGO's organizational structure and management structure,
- To assess the sustainability of JHPIEGO's efforts in building national training systems to train health-care personnel, and

- To identify specific areas of RH training that JHPIEGO should emphasize under its next cooperative agreement.

1.2.1 Methodology

The team's evaluation, which took place from April to June of 1997, began with meetings with USAID and JHPIEGO. The team then reviewed materials and visited three of JHPIEGO's field programs—Kenya, Nepal, and Indonesia—where the team interviewed representatives from USAID, JHPIEGO, host-country institutions, and JHPIEGO's collaborators. These visits were complemented by a careful review of the USAID missions' e-mail responses to a G/PHN/POP e-mail sent to 22 missions and regional offices requesting feedback on JHPIEGO's performance. Through those e-mail responses, and through site visits or telephone calls, the evaluation team received feedback from 18 USAID offices. Additionally, the team talked with staff from key collaborating Cooperating Agencies (CA) in the United States and in the field.

2. JHPIEGO'S ACHIEVEMENTS IN THE COOPERATIVE AGREEMENT

The following tables, prepared by JHPIEGO, summarize the project's accomplishments. These accomplishments are presented in terms of PHN Results.

Table 1a

Selected Cooperative Agreement Commitments, October 1, 1997 to March 31, 1997

Indicator	Planned by Sept. 30, 1998	Completed by March 31, 1997	Notes
1.1 New and improved technologies and approaches for family planning programs			
1.1.a New and improved products, strategies, and technologies developed and evaluated			
Joint country strategy developed	15 countries	20	includes Brazil, Burkina Faso, Central Asian (CEN) Region, Ghana, India, Indonesia, Kazakstan, Kenya, Kyrgyz Republic, Niger, Peru, Philippines, Russia, Senegal, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbeckistan, and joint IPPF/JHPIEGO training strategy for 15 Arab world regional affiliates completed ***Also contributes to Intermediate Results 1.2.a, 1.3.a***
JHPIEGO training and educational materials (new and updated) harmonized with USAID Interagency Working Group standards	100% of JHPIEGO materials	10/10	Service Delivery Guidelines ***Also contributes to Intermediate Result 1.1.d***
New training packages developed	2 packages	3	Postabortion Care reference manual, course handbook, and trainer's notebook; Clinical Training Skills for Reproductive Health Professionals, Contraceptive Technology Update package (PocketGuide and Reproductive Health Service Guidelines [RHSG])

Source: JHPIEGO portfolio review

Table 1b

Selected Cooperative Agreement Commitments, October 1, 1997 to March 31, 1997

Indicator	Planned by Sept. 30, 1998	Completed by March 31, 1997	Notes
1.1.c Improved knowledge-base for understanding, setting priorities, and applying new or improved technologies and approaches			
Joint country needs assessments conducted	15 countries	21	includes Bolivia, Brazil, Burkina Faso, CEN Region, Ghana, India, Indonesia, Kazakstan, Kenya, Kyrgyz Republic, Moldova, Morocco, Niger, Peru, Russia, Tajikistan, Turkmenistan, Uganda, Ukraine, Uzbeckistan, and Zimbabwe ***Also contributes to Intermediate Result 1.3.a***
Special study conducted to assess the impact of in-service training	11 countries	5	includes Ghana, Kenya, Philippines, Zimbabwe, and Nepal
Special studies showing improved effectiveness/ efficiency of training	2 studies	4	Thailand pelvic model, Indonesia Norplant training arm model study, Indonesia Norplant removal study (U technique), Zimbabwe cervical cancer screening initiative pilot-test completed September 1995 (main study ongoing to Sept. 1997)

Source: JHPIEGO portfolio review

Table 1c

Selected Cooperative Agreement Commitments, October 1, 1997 to March 31, 1997

Indicator	Planned by Sept. 30, 1998	Completed by March 31, 1997	Notes
1.2 Improved policy environment and increased global resources for family planning programs			
1.2.a National and operational policies relating to family planning and reproductive health formulated, disseminated, and implemented and barriers to service availability removed			
Contraceptive method-specific guidelines developed	15 countries	13	includes Bolivia, Brazil, Guatemala, India, Indonesia, Kyrgyz Republic, Morocco, Nepal, Peru, Philippines, Senegal, Turkey, and Zimbabwe ***Also contributes to Intermediate Result 1.4.b***
Medical barriers to service access and quality are identified and addressed in national RH/FP guidelines	6 countries	18	includes Bolivia, Botswana, Brazil, Cameroon, Guatemala, Guinea, India, Indonesia, Kazakstan, Kenya, Kyrgyz Republic, Nepal, Peru, Philippines, Senegal, Turkey, Uzbeckistan, and Zimbabwe ***Also contributes to Intermediate Results 1.4.a., 1.4.b***
1.3 Enhanced capacity for public, private, NGO, and community-based organizations to design, implement, evaluate, and finance sustainable family planning programs			
1.3.a Improved technical and management capacity within family planning and reproductive health institutions			
Family planning training program established in one or more of the major pre-service (medical, midwifery, nursing) systems	20 countries	22 in progress	The 22 in progress include Bolivia, Brazil, CEN Region, Ghana, Guatemala, Kazakstan, Kyrgyz Republic, Nepal, Niger, Peru, Philippines, Russia, Senegal, Turkey, Turkmenistan, Uganda, India, Uzbeckistan, Tajikistan, and Zimbabwe ***Also contributes to Intermediate Result 1.4.b***

Source: JHPIEGO portfolio review

3. CAPACITY BUILDING, INSTITUTIONALIZATION, AND SUSTAINABILITY

JHPIEGO works to help achieve all four of PHN's *Results* under *SO 1*. JHPIEGO's work in capacity building, institutionalization, and sustainability is directed toward the following two results:

- Improved policy environment and increased global resources for FP programs (PHN *Result 1.2*); and
- Enhanced capacity for public, private NGO, and community-based organizations to design, implement, evaluate, and finance sustainable FP programs (PHN *Result 1.3*).

3.1 JHPIEGO's Definitions

3.1.1 Capacity Building

Capacity building is an explicit objective of JHPIEGO's cooperative agreement, and it has developed a framework to define, monitor, and evaluate its capacity-building work (Figure 1).[4] In this framework, JHPIEGO describes capacity building as "bringing together the educational and health systems of a country to prepare a cadre of health-care providers who can deliver standardized, high-quality services. In this framework, pre-service and in-service training are coordinated, and service delivery and clinical training are guided by a set of up-to-date, nationally accepted service delivery guidelines." JHPIEGO has identified benchmarks for each of the key components of the framework (e.g., national policy and service guidelines); these benchmarks define the steps of capacity building and enable JHPIEGO to plan, monitor, and evaluate its work.

The highest level of JHPIEGO's benchmarks identify a point at which JHPIEGO's inputs have become standardized, accepted, or internalized in the host countries. However, the benchmarks do not reach the point where host-country colleagues have the capacity to assess needs, create materials, develop guidelines, or provide training on their own. For instance, for curricula development in pre-service training, the highest level benchmark is "official standard for training in all institutions." At the same time, the highest level benchmark for materials development is "a system exists for ensuring the provision of sufficient number of training materials (and) supplies to all institutions." With in-service training, the highest level

[4] As discussed in Chapter 6, in terms of the evaluation framework developed by USAID's Evaluation Project (Bertrand 1996) JHPIEGO evaluates the impact of its activities at the level of functional outputs.

Framework for Establishing Integrated Reproductive Health Training

available only in hard copy

benchmark for faculty, tutor, and classroom presentation skills is "officially designated and responsible to teach classroom portion of RH/FP curricular component in all institutions" and for strengthening clinical training sites, the highest level is "a sufficient number of sites functioning effectively as clinical training sites to meet clinical practice training needs."

3.1.2 Institutionalization

In the documents reviewed by the team, JHPIEGO does not explicitly define institutionalization. The objective of institutionalization is, however, implicit in JHPIEGO's *Framework for Integrated Reproductive Health* and in its field activities. *The American Heritage Dictionary of the English Language* defines institutionalization as "building relationships or patterns of importance in the life of a community or society or to make into or treat as an institution." Institutionalization connotes that an organization or institution has come to "buy into," "own," and be committed—over the long term—to the ideas, norms, procedures, and standards introduced to that organization or institution. Such institutionalization, implicit in the *Framework for Integrated Reproductive Health Training,* is a key factor in both PHN *Result 1.2* and PHN *Result 1.3*.

3.1.3 Sustainability

Sustainability, as defined by JHPIEGO, would result from achieving the components that are described in the *Framework for Integrated Reproductive Health Training*. In its 1995 "Annual Report," JHPIEGO writes: "JHPIEGO's model for sustainable development depends on the existence of well-defined linkages between the domains of health policy, service delivery, and pre-service and in-service training."

Sustainability or sustainable national training systems are not mentioned in JHPIEGO's cooperative agreement, nor is there any language in that cooperative agreement promoting cost-effectiveness or cost-efficiency at JHPIEGO's headquarters in Baltimore or at the field level. It is not altogether surprising, therefore, that JHPIEGO principally interprets sustainability as programmatic sustainability. In its 1996 "Annual Report," JHPIEGO defines sustainability as "countries being able to carry on their own reproductive health education and training programs without outside support," but JHPIEGO has not defined financial sustainability or developed indicators for it.

3.2 The JHPIEGO Model: The Framework for Integrated Reproductive Health Training

JHPIEGO's model for building national capacity is the *Framework for Integrated Reproductive Health Training* (see Figure 1). It has seven components that promote the provision of quality RH service in service delivery points.

3.2.1 Needs Assessments and Country Strategies

The first component in the *Framework for Integrated Reproductive Health* is a needs assessment. This needs assessment will lead to a country strategy, developed in collaboration with host-country counterparts and other CAs. JHPIEGO has conducted joint country strategies in 20 countries, five more than were targeted in the fourth cooperative agreement. JHPIEGO's country strategies do not follow a standardized format, but these strategies generally provide a background on a country's need for trained providers of FP services and the existing capacity of the country to provide adequate training. Most needs assessments concentrate on the problems of training systems, rather than on the entire system of human resources that are required to provide quality services in service delivery sites. However, JHPIEGO's March 1997 country strategy prepared for Nepal (Hughes 1997) is more comprehensive and does address some of the non-training, programmatic constraints that would need to be addressed to achieve the intended impact on the delivery of FP services. These constraints included the following:

- The lack of a comprehensive national training program;
- The lack of a national training plan linked to service delivery needs and goals;
- The serious shortage of FP provider staff, particularly female workers;
- The inadequate supervision and monitoring of existing staff, inadequate opportunities for staff advancement, and lack of a relationship between performance and reward; and
- The insufficient communication and coordination among donors and the Ministry of Health (MOH) and among other organizations involved in FP in Nepal.

This Nepal country strategy, addressing a variety of human resource problems, was followed by a description of JHPIEGO's workplan that concentrated exclusively on training interventions. In this workplan, there were no plans for addressing the non-training, human resources problems and needs or for identifying other CAs to address them.

3.2.2 National Reproductive Health and Family Planning Service Guidelines

The second component in the *Framework for Integrated Reproductive Health Training* is the development, adoption, and dissemination of national RH and FP guidelines. For these guidelines, JHPIEGO identifies six benchmark levels. These benchmarks can be viewed as the progressive institutionalization of standards and as contributions to an improved policy environment. The benchmarks begin with "country officials sensitized about need for revising guidelines, knowledge updated, consensus reached," progress to adoption of the guidelines, and end with the dissemination of the guidelines. As indicated in Section 4.2.1, a final stage in

institutionalization—the stage critical to improving quality—would be compliance with those guidelines.

3.2.3 Pre-service and In-service Training

Training is the focus of the *Framework for Integrated Reproductive Health Training.* This section of the report discusses two JHPIEGO directions for building capacity: pre-service training and in-service training. Ideally, these two directions are integrated.[5] See Chapter 4 for a specific discussion of JHPIEGO's training approach and materials.

Approximately 60 percent of JHPIEGO's training is in-service training and 40 percent is pre-service training. Until recently, JHPIEGO worked primarily with in-service training, usually where little or no infrastructure existed for conducting such training. To solve the infrastructure problem, JHPIEGO established training networks that require training for competent trainers of service providers and for master trainers to train trainers. These training networks also require training packages, including written materials for both trainers and trainees, audiovisual materials, and anatomical models for skills practice. Since no job category or budget for paying trainers exists in most countries, JHPIEGO has paid honoraria for trainers above the regular salaries that they are paid as service providers or faculty members. JHPIEGO has also paid for the administration of the trainer network in Indonesia, Kenya, and Nepal and has subsidized the costs of trainee travel and other expenses.

This early focus on in-service training was seen by JHPIEGO as filling an important but temporary need to rapidly train the many inadequately skilled clinical providers. As a JHPIEGO official put it, "We have spent the last few years draining the swamps. We are now working on creating sustainable training capabilities." Several factors relating to inadequate pre-service training in FP caused this "swamp" of incompetent FP service providers:

- Most medical and nursing schools had little or no FP/RH training in their training curriculum.

- Training was largely theoretical; no clinical practice in FP was provided.

---

[5] One of JHPIEGO's five cooperative agreement objectives is direct training to meet short-term national FP needs, especially in long-term methods, through the training of service providers. JHPIEGO notes in its 1997 "Annual Report" that "although *direct training* of service providers remains a part of the work carried out in JHPIEGO programs, this is increasingly an indirect result of our programs, which focus on strengthening the reproductive health training system in a given country rather than on training per se. Direct training of service providers occurs chiefly when a new family planning method or new reproductive health service is being introduced in a country."

- The ratio of students to faculty was high: rapid increases in numbers of medical and nursing students were not met with increases in numbers of faculty.

JHPIEGO is working with pre-service training institutions in several countries, including Kenya, Indonesia, Guatemala, Turkey, and Brazil. In Kenya, JHPIEGO has worked with the Jomo Kenyatta University Medical School for twenty years, beginning with training OB/GYNs in laparoscopic tubal ligation. In recent years, the entire OB/GYN faculty has received training to standardize their skills in the full range of FP methods and many have become certified trainers in the JHPIEGO approach. JHPIEGO's work with the OB/GYN department has resulted in several positive developments:

- Faculty now supervise the training of interns in district hospitals.

- Faculty master trainers are able to train other trainers in both standardized clinical skills and clinical training skills.

- Faculty are designing new curricula and materials in RH, such as obstetrics, using the JHPIEGO approach.

- Other departments in the medical school are asking for assistance from the OB/GYN department to develop curricula and training skills. According to the head of the department, the OB/GYN curriculum and training approach is now the model on which the entire medical school is based.

JHPIEGO's funding of the project at the Kenyatta Medical School ended this year because USAID's funding in Kenya was reduced. JHPIEGO believes that the work in the Medical School is sustainable—after 20 years—without further outside assistance, and medical school faculty confirmed that much of the work would continue. However, without JHPIEGO's practice of "topping off" salaries for training outside the walls of the medical school, the supervision of interns may decline or stop unless other funding is found. The medical school has not adopted a policy of including intern supervision among the duties of the faculty.

In Guatemala, JHPIEGO took a much more direct approach to policy change at the San Carlos University Medical School. Here, JHPIEGO sponsored a two-week workshop on strategic planning for the deans and department heads of all medical school departments. In this workshop, the faculty reviewed all of the policies that determined their effectiveness in training, research, and service delivery. This workshop led to several key policy changes, including the modification of admission standards and the introduction of competency-based teaching techniques. The faculty also decided to include FP and RH in their standard curriculum, an innovation that took JHPIEGO years to implement in some other countries. The faculty has also taken the initiative to develop a manual that introduces a step-by-step approach for conducting a routine physical examination. This manual, which serves as a learning guide for new medical students under the

supervision of a clinician, includes client instructions, stipulates the equipment needed, and provides a checklist on how to conduct a physical exam correctly.

JHPIEGO writes in its most recent annual report that it has emphasized pre-service training, recognizing that pre-service training is less expensive and less disruptive to service delivery and, consequently, likely to be more sustainable than in-service training. The trend is clearly toward pre-service training. By the end of program year 1988, JHPIEGO plans to establish programs in FP training in one or more of the major pre-service—medical, midwifery, and nursing—institutions in 22 countries. JHPIEGO's collaborators in the field support this trend; representatives from many USAID missions, AVSC International, and the United Nations Population Fund (UNFPA) indicated that they believed JHPIEGO's unique niche and contribution was in pre-service.

The question, however, is whether pre-service training is more cost-effective than in-service training. The previous evaluation of JHPIEGO (Pillsbury 1990) noted that comparative cost data on pre-service and in-service training were not readily available and the evaluators did not attempt to do any cost-effectiveness analyses. Nonetheless, that evaluation concluded that "It is not feasible, and will probably never be cost-effective, however, for family planning clinical skills to be taught to all medical, nursing, and midwifery students during their basic education."

Comparative cost data on pre-service and in-service training is not available; therefore, we operate on assumptions. Theoretically, in pre-service training, the costs are front-loaded as a curriculum is developed and faculty are trained; costs fall dramatically (and then zero out) as the curriculum and skills are incorporated and institutionalized (as has happened with JHPIEGO's pre-service training of physicians in Kenya). Early in-service training costs would also be high as training sites—and curriculum and trainers—are developed. However, given the example of JHPIEGO's work in Indonesia, the in-service costs would continue indefinitely as long as the professional schools graduate untrained, unskilled providers.

JHPIEGO believes that a basic package of RH skills should be offered to all health care providers who will be working in primary health care and it urges governments to develop policies that will give hiring preference to people who have been trained in RH. JHPIEGO has found it possible to train providers on models during their medical training and then provide a very short clinical practice experience just before graduates leave for their field service. JHPIEGO further notes that all developing countries provide basic RH skills to providers before they enter service. There will, however, always be a need for in-service training courses linked to pre-service institutions to introduce new technologies, or for selective remedial training if skills deteriorate.

3.2.4 Service and Clinical Training Sites

In most countries in which JHPIEGO delivers training, either the training institutions do not have clinical facilities or the facilities are not of the size and quality required under JHPIEGO's standards. Therefore, another component of JHPIEGO's framework is assistance to collaborating training institutions in developing clinical training sites, including upgrading, maintaining, and supplying these sites. JHPIEGO indicates that all clinical training sites are standardized with regard to the equipment, supplies, infection prevention services, and contraceptive services offered.[6] JHPIEGO states that, in principal, $5000 is the maximum spent on any one site. These sites are chosen based on four criteria:

- The site is an active service delivery site,
- The site has a high volume of clients,
- The site is typical of clinics in the area, and
- The site meets basic standards of counseling and infection prevention.

JHPIEGO no longer funds construction.

To upgrade the clinical training in Nepal, JHPIEGO recently funded renovations to the maternity hospital because, as JHPIEGO counterparts explained, the space where training was previously conducted was congested and crowded; now FP will have a floor to itself. JHPIEGO has complemented this renovation by donating equipment for treating incomplete abortions, audiovisual equipment, and materials and modules, as well as training in infection prevention and counseling, and financial support to the hospital to compensate three hospital staff for their training time. A group of three or four students are trained for a period of four weeks, including three weeks of didactic training and one week of practical training.

JHPIEGO's support to clinical training sites includes funding for supervision of host-country counterparts and support to the various tiers of these sites. In Indonesia, JHPIEGO has helped establish a four-tiered National Clinical Training Network (NCTN) with headquarters in Jakarta. Through the Indonesian Society of Obstetricians and Gynecologists (POGI), JHPIEGO supports the operation of the NCTN, its supervision, monitoring, and support to three National Resource Centers (NRC). These NRCs supervise eight Provincial Training Centers (PTC) that, in turn, monitor and supervise seven District Training Centers (DTC). At this final tier—the DTC—the focus is on training of direct service providers. JHPIEGO provides funding for four administrative

[6] While conducting training in upgraded facilities provides a better setting for training, we question whether such training adequately prepares trainees for practice under real field conditions.

salaries for POGI and for POGI's office expenses, for four salaries for NCTN and for NRC's office expenses, and for the travel and per diem for staff of the supervisory tiers to supervise and monitor the lower-level tiers.

3.2.5 Service Delivery Points

Improved clinical quality at service delivery points is the final component of JHPIEGO's *Framework for Integrated Reproductive Health Training*. JHPIEGO's documents contain relatively little about actual service delivery. See Chapter 5 for JHPIEGO's definition of quality service delivery and recommendations for assessing compliance at the service delivery level.

3.3 Institutionalization

As previously indicated, JHPIEGO's definition of capacity building—and the activities within that term—includes institutionalization. If JHPIEGO is to make progress toward accomplishing the core components of the *Framework for Integrated Reproductive Health Training*, institutionalization must occur. For example, development of national RH and FP service guidelines necessitates building relationships in the national RH community and developing "buy-in" and ownership of service delivery standards.

Pre-service training involves the institutionalization of curricula, clinical trainer and faculty skills, clinical training sites, training materials, and training information systems. For each of these elements, there are tiered benchmarks of success. Under this cooperative agreement, JHPIEGO has achieved at least the first level of success in one or more pre-service components in fourteen countries. It has achieved the fourth level—or what might be interpreted as real institutionalization—in three countries: Philippines, Uganda, and Kenya (completed under the third cooperative agreement). The highest level of institutionalization has been achieved in the Philippines and Uganda where such curricula have become the official standard for training in all institutions.

In-service training, implemented through national training systems, involves institutionalizing professional training methodologies. Although Chapter 4 contains a discussion of whether JHPIEGO's training is really competency-based, it is clear from the team's country visits that host-country counterparts and USAID's missions have "bought into" the concept of competency-based training (CBT). As with its other interventions in the *Framework for Integrated Reproductive Health Training*, JHPIEGO has tiered benchmarks for in-service training; the highest level of these benchmarks could be interpreted as institutionalization.

One means to ensure the support of training activities and institutionalization are Memoranda of Understanding (MOU) with institutions that are the focus of JHPIEGO's capacity-building activities and are recipients of JHPIEGO's inputs such as salary supplements, equipment, and

materials. In the three countries that they visited, the evaluation team discussed with each recipient organization the terms of such MOUs;

- Several institutions (the nursing schools in Kenya and the National Training Center in Nepal) indicated that although they believed such MOU existed, they did not know the terms of these agreements.

- Where MOUs did exist (Midwifery School in Indonesia), they did not clearly identify the intended outcomes of training, the support needed for trainees, nor the specific obligations of either party to the agreement.

A further means for JHPIEGO to ensure institutionalization and sustainability is to develop and use a cadre of national and regional consultants for South-to-South collaboration. JHPIEGO has a process for developing trainers that is designed to create a continuous supply of expert consultants and technical advisors. As stated in JHPIEGO's annual workplan, "JHPIEGO's strategy is to reduce the dependence on U.S.-based trainers and consultants and to train trainers from the region where they live and can conduct training." This process for developing trainers includes several steps of training and supervised practice that move a service provider to various levels of qualification as a trainer. First, a service provider is "standardized" as a competent service provider, then he or she may receive a course in clinical training skills and become a qualified clinical trainer. Some clinical trainers receive additional training and supervised practice teaching to become advanced trainers, capable of training clinical trainers. The final step in developing trainers is to train the master trainer, who is capable of conducting training needs assessments and can design and evaluate training in addition to training trainers.

During the fourth cooperative agreement, JHPIEGO has conducted 136 training events. These events have prepared 2,234 participants as clinical trainers, which is the first step in the training process (see Appendix D). No data are available on how many of these trainees subsequently conducted clinical training. JHPIEGO reports that it has trained 56 candidates as advanced trainers; 22 of these trainers are qualified according to JHPIEGO's standards. JHPIEGO has also developed ten candidates to the master trainer level; four of these candidates are fully qualified to design and evaluate clinical training programs. To date, perhaps because the process starting as a clinical trainer (2,234 participants) and becoming a master trainer (four fully qualified) is so lengthy and demanding, JHPIEGO/Baltimore continues to provide considerable Baltimore-based technical assistance to in-country training.

Over the life of the project, 34 percent of the 2,234 clinical trainers have been physicians, 14 percent have been nurses, and 3 percent have been midwifes. JHPIEGO classified 1,204 (49 percent) participants in the clinical training skills courses as "other," perhaps indicating that no information on their job classification was gathered.

3.4 Sustainability

As indicated, JHPIEGO has built capacity and achieved considerable institutionalization. The question is whether the national system or components of the system are sustainable without outside technical assistance. Note that PHN *Result 1.3* addresses the capacity of local organizations to "design, implement, evaluate, and finance sustainable family planning programs."

3.4.1 Programmatic Sustainability

Thirteen USAID missions either responded directly to the question of sustainability that was posed by the Office of Population's e-mail or responded verbally to the evaluation team—in terms of components of the system. Six missions—Philippines, India, Guatemala, Guinea, Russia, and Kenya—indicated that they believed JHPIEGO's pre-service activities with medical, nursing, and midwifery schools were sustainable. Only in Kenya does JHPIEGO feel it has successfully installed a complete, sustainable, pre-service training system. In the Philippines, JHPIEGO

> has had notable success with both the midwifery schools and the nursing colleges.... JHPIEGO's activities which are winding up in September this year are intended to ensure that a minimum of 90 percent of these nursing colleges and midwifery schools have at least one faculty member each trained in the competency-based FP/RH curriculum. A major issue affecting nursing/midwifery training has been the lack of availability of clients due partly to poor selection of training sites and to lack of community outreach. The Mission, however, is confident that even with the phase out of JHPIEGO funding and technical assistance in September 1997, teaching of FP/RH in the nursing colleges and midwifery schools will continue.

The data available to the team does not indicate that any in-service program established by JHPIEGO is sustaining training after JHPIEGO phases out. Several missions, including Ukraine and Turkey, wrote supportively of JHPIEGO's efforts and indicated that it was too early for decreased technical assistance. USAID/Bolivia wrote that they believed the eight integrated (pre-service and in-service) RH training centers, established collaboratively with the National Secretariat of Health and with the Pan American Health Organization (PAHO), would be sustainable; however, these centers continue to operate with significant technical assistance and donations of materials and equipment from JHPIEGO. One in-service program—the Fertility Care Center of the Mary Johnson Hospital in the Philippines, which JHPIEGO provided with funding, technical, and equipment assistance for many years—folded when JHPIEGO phased out its support.

As indicated, the system envisioned by JHPIEGO is comprised of seven components, beginning with a needs assessment, moving through service delivery guidelines and training (pre-service and in-service) at JHPIEGO-supported training sites, to improved service delivery. The evaluation

team did not have time to evaluate the programmatic sustainability of the system as a whole or of each of these components in any country.

3.4.2 Financial Sustainability

As noted, PHN *Result 1.3* includes the financial dimension of sustainability; therefore, although JHPIEGO has not defined financial sustainability within its framework, it should be determined whether JHPIEGO's inputs are financially sustainable by host-country institutions. Because JHPIEGO had not identified objectives or indicators of financial sustainability prior to this evaluation, the evaluation team was not able to evaluate JHPIEGO against them. JHPIEGO should consider establishing such objectives and indicators prior to the development of the fifth cooperative agreement.

In addition to providing technical assistance and training materials to host-country counterparts, JHPIEGO funds a variety of other inputs deemed necessary over the short term to support the training system. This year in Indonesia, JHPIEGO's US$221,582 contract[7] with POGI provides POGI with funds to pay administrative and professional salaries and office expenses (including utilities) and to coordinate and supervise (salaries, travel and per diem) each of the various tiers of the national training network. In Nepal, JHPIEGO has an agreement with the maternity hospital to pay the salaries of one physician coordinator and two physician trainers in the RH/FP intern training program. In Kenya, until JHPIEGO phased out of activities with the Kenyatta Medical School, JHPIEGO provided salary supplements, travel, and per diem to the faculty of the medical school who supervised interns in the field. Theoretically, this supervision was the work of the MOH and, consequently, was not continued when JHPIEGO phased out and those incentives ended.

As to the question of whether host-country counterparts will be able to financially sustain the training programs and approaches established with JHPIEGO's assistance, one USAID mission responded to the Office of Population's query with the following statement:

> The issue has been in finding the funding for supporting training programs...the question is always, "Who pays?" Given that the Ministry of Health received only 38 percent of its requested budget and physicians in some areas have not received a salary for six months, no funds exist for most of those trained by JHPIEGO to "roll out" their training.

When questioned about financial sustainability, JHPIEGO's field staff and host-country counterparts and collaborators replied that they doubted that host-country institutions could support JHPIEGO-assisted programs on their current level once JHPIEGO's funding ceased. In

[7] The cost to USAID would include, in addition, JHPIEGO's recharge costs and JHU's indirect costs.

Kenya, Nepal, and Indonesia, respondents voiced the hope that another donor would pick up the costs of JHPIEGO-funded programs and inputs once JHPIEGO and USAID phased out.

One issue that affects project sustainability is the recurrent institutional costs, such as salaries, utilities, and travel. Another sustainability issue, exemplified by interviews in Kenya, is the perceived high cost of JHPIEGO's models and materials. UNFPA, commenting in anticipation of assuming the costs of training JHPIEGO has conducted, was critical of the costs of JHPIEGO's methodology and materials. In other interviews, the nursing directors of the University of Nairobi's Department of Nursing and of the Kenya Medical Training College—with which JHPIEGO has agreements to develop FP/RH pre-service training—wondered how they could afford to fund nurses' training, based upon the Zoe model, on a large scale. There are approximately 40 nursing schools in Kenya; USAID will be working with 20 to 25 of these nursing schools, involving several thousand students a year. The nursing directors did not know how many Zoes would be needed each year—at approximately $400 a piece—on campus, but guessed that if the schools had to bear the costs, they would be lucky to have one model on each campus for several hundred students a year. The question is whether JHPIEGO could develop and use a less expensive and more affordable model, which indigenous institutions could purchase on a recurrent basis.

3.5 Collaboration

JHPIEGO received high marks for collaboration; the nature of this collaboration varies, appropriately, from country to country. JHPIEGO works with AVSC International around the world to develop delivery guidelines. JHPIEGO also collaborates in a range of country- or region-specific activities with other organizations. In Bolivia, JHPIEGO collaborates with the Pan American Health Organization (PAHO), which clears JHPIEGO's materials and equipment through customs and distributes them to training sites, and with UNFPA, which pays the local training costs. In West and Central Africa, JHPIEGO collaborates with the Family Health and AIDS in West and Central Africa project (FHA/WCA), which is funded by the Regional Economic Development Support Office in West Africa (REDSO/WA). JHPIEGO won the training component of the FHA/WCA through a competitive bid. Under this project, JHPIEGO works collaboratively with John Snow, Inc. (JSI), which has the service delivery component; Johns Hopkins Center for Communication Programs, which has the information, education, and communication (IEC) component; and Tulane University, which is carrying out operations research. FHA/WCA is a valuable project in a number of ways:

- It is a competitively won project;
- It is a project providing USAID support in countries after USAID has closed its mission in those countries; and

- It is a project in which JHPIEGO has assumed, in response to USAID's local realities, far broader responsibilities than their mandate entailed.

See Chapter 7 for further comments on the importance of JHPIEGO's ability to respond to missions' new realities.

Conclusions

1. Using a systems approach, JHPIEGO should devote greater effort to country needs assessments to identify gaps in the service delivery system and to analyze the role of the clinical provider in problems of quality. In instances where there appear to be sufficient numbers of adequately trained staff, JHPIEGO needs to determine why service providers are not providing high-quality services. The factors that may be contributing to this lack of quality are as follows:

   (1) A lack of trained providers or a maldistribution or lack of use of trained providers;

   (2) The public policies on admission to professional schools and deployment of the graduates of those schools;

   (3) Poor supervision and little motivation; and

   (4) Training-related reasons, either for pre-service (too many students admitted into professional schools, poorly trained faculty, etc.) or in-service (poor trainee selection, poor trainers, etc.).

Regardless of the reasons for a lack in quality service provision, it is essential to identify these reasons from a systems perspective and identify the interrelations between components of the human resource development and management (HRD&M) systems. See Appendix E for a matrix from POPTECH's "Final Assessment of the Egypt Child Survival Project" that outlines the steps in HRD&M and identifies the human resource policies or practices affecting physician performance in Egypt (Cobb 1996). If one asked questions only about one step—for instance, in-service training—in that Egyptian matrix and disregards the many other steps, one might wrongly conclude that more effort on in-service training (more master trainers, more trainees) might resolve the problem of the lack of skilled providers in rural areas and in Upper Egypt.

A thorough HRD&M analysis should lead to a collaborative strategy for addressing the most critical human resource issues, such as admission to professional schools, professional education (pre-service), deployment, supervision, in-service training, and compensation. This analysis would highlight potential activities, linkages between issues

and activities, and the responsibilities of the individual CAs—JHPIEGO, PRIME, AVSC International, the Family Planning Management and Development project (FPMD), etc. It would also present a rationale for a mix of pre-service and in-service training, based on the systems analysis, including urgency of training, backlog, costs, and available resources.

The financial data that would permit a definitive statement as to whether pre-service or in-service is more cost-effective or sustainable is not available. The pre-service programs reviewed by this team appear to be more sustainable than the in-service programs because of the significant recurrent costs associated with JHPIEGO-supported, in-service training. It is unlikely, for instance, that the elaborate multi-tiered POGI supervision and support to the NCTN would continue without donor support. However, the appropriate balance between pre-service and in-service training is country-specific. Decisions on this balance should evolve from the HRD&M analysis.

2. Currently, JHPIEGO's needs assessments and country strategy documents make the assumption that no service providers are competent unless they have demonstrated competence according to defined standards. Since the only way to demonstrate this competence is through training, this assumption probably over-estimates the number of service providers who need to be trained and leads to only one path—training—for becoming competent. If training is the only accepted path to competence, more cost-efficient, equally effective routes to competence may be ignored. Examples of such routes include:

- Strengthening supervision,
- Training only "key innovators" or "early adopters" who pass on skills to colleagues through informal "on-the-job" training, and
- Providing supplies and equipment to service providers who are competent but who lack materials.

3. JHPIEGO's *Framework for Integrated Reproductive Health Training* is a very useful conceptual model. According to its definition, JHPIEGO has been effective in capacity building. It has brought together the educational and health systems of countries to prepare cadres of health care providers who can deliver standardized, high-quality services. Service delivery and clinical training are guided—or are in the process of being guided—by a set of up-to-date, nationally accepted service delivery guidelines, developed collaboratively in many cases with AVSC International. However, JHPIEGO's definition of capacity building stops short of developing the national, regional, or institutional capacity to carry out JHPIEGO-like activities independently. That is, the definition stops short of including programmatic sustainability, which would be the national, regional, or institutional capacity and competence to undertake needs assessments, develop materials,

train trainers, and provide clinical training. Each of the three countries the team visited had a long way to go before they reached that level.

Although JHPIEGO has not used the term "institutionalization," it has institutionalized—or is in the process of institutionalizing—service delivery standards and training approaches and methodologies, and has occasionally transferred skills in curricula and training materials development that can be used to improve pre-service training beyond FP. JHPIEGO could promote further institutionalization by carefully developing MOUs with each institution and by accelerating the development and use of advanced trainers and master trainers in program countries.

4. The sustainability of many efforts is questionable, particularly when one includes finance in the definition of sustainability. The responsibility for this situation lies with both JHPIEGO and USAID; the fourth cooperative agreement does not contain any language on financial sustainability, scarcity of resources, efficiency, or economy that would have implied that JHPIEGO should have been striving to design and implement financially sustainable training programs.

By paying the staff salaries and office expenses—rent and utilities—of host-country institutions, JHPIEGO has established bad precedents for financial sustainability, particularly when those counterparts can not foresee an end to such support. This was the case with the maternity hospital in Nepal and with POGI in Indonesia. Moreover, key inputs in JHPIEGO's training, such as the Zoe model, are expensive. It is doubtful that developing country institutions will be able to continue training using those models as they were designed, when those institutions must purchase the models themselves.

The sustainability of any program, in-service or pre-service, partially depends on the stage of country development. JHPIEGO would be wise to explicitly link to sustainability objectives in a given country with the stage of development of the FP program in that country and with the stage of development of the main counterpart training institutions or professional schools. The PRIME contract specifically states that "PRIME will provide training interventions tailored to the stage of family planning or reproductive health program development in a given country."

In light of the current climate for international donor funding, it is unsafe to assume that other donors will pick up JHPIEGO's inputs once JHPIEGO and USAID phase out of a program.

RECOMMENDATIONS

1. ***To build greater national, regional, and institutional capacity and institutionalization***, JHPIEGO should strive to build the capacity of countries, regions and institutions to provide for clinical human resource development independent of outside technical assistance. JHPIEGO should add this higher level of achievement to its benchmark hierarchy.

2. ***To promote greater sustainability***, the fifth cooperative agreement should deal explicitly with JHPIEGO's operating in a resource-scarce environment. USAID is phasing down or out in many countries, program countries are poor and have limited ability to support recurrent costs, and the current donor climate does not guarantee that program costs can be transferred once USAID and JHPIEGO withdraw from a program. To immediately begin promoting the sustainability of its programs, JHPIEGO should consider the following actions:

(1) Address the current lack of attention to financial sustainability by developing consensus with USAID on the relative importance of financial sustainability in programming and by developing a JHPIEGO philosophy on financial sustainability, as well as indicators and benchmarks to measure it.

(2) Devote greater effort, using a systems approach, to country needs assessments to identify gaps in the service delivery system and to identify the role of the clinical provider in problems of quality. This assessment, including an HRD&M analysis leading to a strategy for improving quality, should be the basis for all significant levels of JHPIEGO work in a specific country.

(3) Plan, design, and operate with both programmatic and financial sustainability as explicit objectives. JHPIEGO should also incorporate sustainability planning into all its current agreements and should start off all new agreements with programmatic and financial sustainability as explicit points of discussion.

(4) Avoid, to the greatest extent possible, picking up recurrent costs such as salaries, rent, and utilities. JHPIEGO should immediately develop phase-out plans for such subsidization with the relevant institution and with USAID's mission. JHPIEGO should develop country strategies and specific JHPIEGO agreements (MOU) with host-country institutions to clearly delineate the following:

- The in-country costs of JHPIEGO's support to training systems and programs such as salary supplements, travel and per diem, office expenses, and models such as Zoe;

- The organization that will assume those costs when JHPIEGO ceases to fund them; and

- A plan to reduce and transfer those costs.

(5) Use its creativity and ingenuity to develop technologies, materials, and models that are state of the art in functionality, effectiveness, and affordability, such as a pelvic model that could be locally produced in Kenya and that the Kenyan nursing colleges could afford to purchase in sufficient numbers in the coming years.

(6) Accelerate the development and use of advanced trainers and master trainers to create a sustainable training capacity. On a country-specific basis, JHPIEGO should establish a balance between pre-service and in-service training, depending on the country needs assessment. Based on the needs assessments, JHPIEGO should consider service delivery issues such as quality, access, human resources, urgency of provider problem, educational and training resources, stage of program development, USAID's missions and host-country plans and priorities, and the contributions of other CAs and donors.

(7) Work to change the policies of pre-service training institutions so they become more involved in training and supervising clinical skills and provide the policy, research, and monitoring needed to sustain quality service delivery in FP. JHPIEGO should increase its pre-service training interventions in nursing and midwifery schools in countries where those cadres provide most of the FP and RH service to clients. JHPIEGO should also train more nurses and midwives as clinical trainers, advanced trainers, and master trainers.

3. ***To ensure that JHPIEGO's interventions lead to improved provider performance***, JHPIEGO should devote greater attention to needs assessments and country strategies and develop strategies that would accomplish the following:

- Relate provider performance to clinical quality;

- Identify clinical provider problems, such as lack of skills, motivation, or supervision; and

- Lay out a plan, in collaboration with other CAs, to address the clinical human resource development and management problems.

4. TRAINING APPROACH AND MATERIALS AND INFORMATION TECHNOLOGIES

As part of its works to help achieve all four Results under *SO 1*, JHPIEGO's work in direct training, training technologies, approaches and materials, and technical resources development is directed toward the following two results:

- Enhanced capacity for public, private NGO, and community-based organizations to design, implement, evaluate, and finance sustainable FP programs (PHN *Result 1.3*).

- New and improved technologies and approaches for FP programs (PHN *Result 1.1*).

4.1 JHPIEGO's Training Strategy

Training is the focus in JHPIEGO's strategy. A recent description of its strategy places "competency-based mastery learning" at the core of the strategy (see Appendix D). Another description of JHPIEGO's strategy places "competent trainers and providers" as a strategic output, "institutionalized network" and "quality training" as outcomes, and "sustainable network" as an impact of JHPIEGO's programs (see logframe in Appendix D). This strategic emphasis on training methodology, materials, and networks as the outcome and impact of the program ignores other non-training factors that are important determinants of quality FP service. These other factors include policies, supervision and management, and adequate equipment and supplies.

In both pre-service and in-service training, JHPIEGO employs a three-part standardized training strategy defined as:

- Development and refinement of an effective training approach (i.e., competency-based, mastery learning),

- Strengthening of national RH training systems, and

- Application of mastery learning to selected RH topics with emphasis on clinical FP training of health professionals.

4.1.1 The Training Approach

JHPIEGO's training approach defines a competent clinician (e.g., physician, nurse, midwife, or medical assistant) as one who is able to perform a clinical skill to a defined standard. CBT focuses

on providing the specific skills one needs to become competent. JHPIEGO adds the concept of mastery training, as outlined in "The Competency-based Approach to Training," in which trainees demonstrate complete attainment or mastery of clinical skills in order to be certified in a clinical procedure (Sullivan 1995).

JHPIEGO has achieved many successes in advancing this training approach during the fourth cooperative agreement.

> **(1) Competency-based and Mastery Training**. CBT or mastery training has become the standard for training in most of the countries in which JHPIEGO has had a major presence, and has become the standard for many local and international training agencies. In its 1996 "Annual Report," JHPIEGO cites examples of this standardized use. In the Philippines and Uganda, JHPIEGO's curricula and materials have become the official standard for training in FP for all pre-service institutions. In Kenya and the Philippines, the CBT approach has been officially designated as the standard for classroom presentations in all institutions. In Nepal, Brazil, Guatemala, and Turkey, JHPIEGO's approach has been implemented in one or more pre-service institutions. For in-service training for practicing health professionals, JHPIEGO's approach has become the official standard for all training institutions in Indonesia and Bolivia and standardized trainers and preceptors are officially designated to teach clinical FP in Bolivia, Brazil, Indonesia, and Nepal.
>
> **(2) Training Packages**. Training packages including standardized, designed curricula, focused materials for trainers and trainees, and supporting audiovisual materials and practice models have been developed for all of the clinical FP methods. During the fourth cooperative agreement, new training packages have been developed for postabortion care, advanced clinical training skills, and contraceptive technology update. JHPIEGO's approach to materials development has also been widely adopted in the international RH training community.

However, although JHPIEGO promotes competency-based training, it often violates the key elements of CBT in its application of the approach. CBT is intended to reduce the amount of training needed to include only the essential skills an individual needs to perform safe and effective clinical procedures. Yet, JHPIEGO's training is not individually paced and all trainees receive the same training regardless of their initial level of competence. This practice occurs because trainees are brought to off-site courses for a specific length of time and must stay for the course regardless of when they reach competency.

4.1.2 National Systems

JHPIEGO's training strategy focuses on creating training systems that provide host countries the capacity to train their own health-care personnel to deliver quality FP services. These training

systems include competent trainers with standardized clinical and training skills, adequate training materials and supplies, well-equipped clinical training sites, and standardized curricula officially adopted by the training institutions. Most of USAID's missions that responded to the Office of Population's survey reported that JHPIEGO was very responsive to their requests for new training programs and other changes in its established program. Two missions reported, however, that JHPIEGO had attempted to apply the same training approach that it had applied elsewhere and was not willing to adapt the model to local conditions. JHPIEGO's training model requires well-organized, managed training sites and logistical support; when these elements are not present, the model does not fit well. One mission also noted that the standards and guidelines used in training can not always be replicated in the field.

4.1.3 Application of Mastery Learning

JHPIEGO has applied its training model to a wide range of FP/RH topics. JHPIEGO has developed standardized training packages that include reference manuals, training materials, and slide sets for eleven RH/FP topics. Increasingly, JHPIEGO is being asked by USAID's missions and other training agencies to expand the technical areas in which it conducts training and prepares training packages. These new training areas include adolescent RH care, essential maternal health care, cervical cancer care, and postabortion care. JHPIEGO has created country-specific training materials including materials on management of genital tract infections for Ghana, minilaparotomy for Nepal, and minilaparotomy and laparoscope for Uttar Pradesh, India.

4.2 Training Materials Development

JHPIEGO helps to improve the quality of training in two ways. JHPIEGO has (1) introduced the CBT training approach and it has (2) developed training materials and training packages. JHPIEGO's strategy is to produce high-quality, low-cost materials on topics in which it has technical expertise and to avoid duplicating materials that have been developed by others.

JHPIEGO has designed special training materials to focus clinical training on essential, "need-to-know" information and to ensure that trainees develop necessary skills. A training package is developed for each training area. Each of these training packages typically contains all the materials needed to deliver the training, including audiovisual materials such as slide sets and videos. To complement these training packages, additional manuals and monographs are developed to address specific information needs. Examples of these packages include the *PocketGuide for Family Planning Service Providers, Service Delivery Guidelines for Family Planning Service Programs*, and the monograph *How to Do a Pelvic Examination.* All of the packages may be used in both pre- and in-service training.

JHPIEGO has met or exceeded its targets for materials development during the fourth cooperative agreement. Most of these targets were met by the end of 1995; in 1996 JHPIEGO

concentrated on field-testing new materials, updating existing materials, and producing translations of materials previously published in English. In addition, JHPIEGO has recently created new materials in such topics as postabortion care services, essential maternal care, and emergency contraception.

4.3 Quality of Materials

JHPIEGO judges the quality of its training packages on the following criteria:

- **Comprehensiveness**. Materials cover all information a provider needs to provide quality services.
- **Simplicity of Structure**. Materials have easy to follow formats for instructors and trainees.
- **Trainer Usability**. Materials provide designed, field-tested syllabi and course outlines for instructors.
- **Low Cost**. JHPIEGO reports that written course materials cost $10 to $12 per participant per course.
- **Flexibility**. Materials can be modified to respond to local conditions.

JHPIEGO gets high marks from trainers and other training organizations in the field for the quality of its training packages. The training materials are technically accurate and comprehensive, providing sufficient, focused information needed to become competent in particular clinical skills. Both trainers and trainees appreciate the structure and format of the materials. Although the team observed a limited number of actual training courses, it was clear that the materials were being used as they were intended and that trainers were following prescribed curricula. JHPIEGO's standardization of training and training materials is a major contribution to training in RH.

JHPIEGO's materials have become the standard on which many CAs and other organizations base their training. In Kenya, JHPIEGO has worked with Family Health International (FHI) and the Centre for African Family Studies (CAFS) to transfer the capacity to create standardized training packages. CAFS contracted directly for JHPIEGO's services in developing training materials. In Nepal, the training materials produced by the Australian United Mission to Nepal on Dental and Mental Health were based entirely on JHPIEGO's model.

However, the evaluation team noted some problems with JHPIEGO's training materials:

- Reading levels are at about U.S. 11th to 12th grade. These levels may be too high for trainees who speak English as a second language and who have less than a secondary school education.

- Materials are not available in sufficient number. JHPIEGO's policy is that each trainee should have his or her own participant handbook. However, some schools do not have enough materials to give each trainee a copy and trainees have to read their materials in the library.

- The Zoe anatomical model that is used to practice IUD insertion and other clinical procedures is expensive—about $400 per model delivered—and has an anticipated lifespan of only four to five years. Several training institutions had only one or two models and were using them for faculty demonstrations only.

JHPIEGO belongs to an interagency group within USAID called the "Reproductive Health Materials Working Group." This group, started in the 1980s, consists of all the CAs who do FP training; it fosters cooperation on materials development and reduces duplication of effort. According to its participants, JHPIEGO is playing a leadership role in the group and cooperation has increased, especially in the last three years. JHPIEGO's training materials are routinely sent to the other CAs for review and suggestions, and all new and updated training materials are written according to the group's standards.

4.4 Electronic Information Technology Programs

The SOW for this evaluation contains a number of questions that USAID agreed would not be handled by the three-person evaluation team. Therefore, the following section presents only an overview of JHPIEGO's electronic information technology programs.

4.4.1 Objectives of the Programs

JHPIEGO is developing a series of computer-based information systems designed to combine its competency-based training approaches with developments in telecommunications and computing. This four-component program is called ReproSystem, and is being jointly developed by JHPIEGO, the Johns Hopkins Applied Physics Laboratory, and Tulane University. The objectives of these program components are to improve the quality of clinical training (ModCal), extend quality obstetrical care to remote areas (MomCare), enable countries to plan their training of health service providers more effectively (ProTrain), and provide up-to-date and low-cost training materials via the Internet around the world (ReproLine). Following are the four components of ReproSystem:

- **ModCal**, a modified, computer-assisted learning system available on CD-ROM. ModCal modules are designed to be used in conjunction with clinical practice to provide self-paced, minimum-guidance training.

- **MomCare**, a telemedicine system designed to provide consultation from referral-level facilities to peripheral hospitals and remote health centers on obstetrical care. The system provides simultaneous voice, video, still picture, data, and writing capability.

- **ProTrain**, a software model designed to allow policy makers and managers to predict the number of trained FP providers required to meet program objectives and to identify the estimated number of trained providers available.

- **ReproLine**, an on-line or CD-ROM-based service providing regularly updated information on selected RH topics, including FP.

For detailed information, see Appendix F which contains the article, "Using the Internet to Improve Reproductive Health Training" from *Globalizing Access to Reproductive Health Information* (McIntosh 1997).

4.4.2 The Present Status of the Program Components

At present, all of the ReproSystem program components are in the developmental stage. Most of the components can be viewed only at JHPIEGO's Baltimore office. ReproLine and ProTrain can be viewed in JHPIEGO's Indonesia office, but they are not yet operational or available to users beyond JHPIEGO's staff.[8] ModCal has been given a pilot test in Zimbabwe, in which 38 participants (midwifery students, tutors, and practicing nurses) completed a five-module prototype. The results of this test showed that scores on pre and postest knowledge assessments increased significantly for trainees who used the ModCal IUD program. In its report on this field test, JHPIEGO concluded that the use of computer-assisted learning was feasible in Africa. No independent assessment of the feasibility and cost-effectiveness of this technology has been conducted.

JHPIEGO's data on these programs (See Appendix G) indicates that JHPIEGO has spent $850,000 on the development of these programs and estimates sending another $673,000 to complete the development phase—not including the costs of the Futures Group, with whom

[8] USAID's Indonesia Mission strongly supports JHPIEGO's work to date in information technology and sees real potential for its roll-out in Indonesia. See Appendix D for a "Strategic Plan for Strengthening the Reproductive Health Training System" of Indonesia, presented at a conference in Bali from October 13-15, 1995.

ProTrain was jointly developed. JHPIEGO estimates that its annual recurrent Baltimore-based costs to refine, update, and maintain the programs will total $743,000. JHPIEGO projects additional costs to set up these programs; these costs do not include hardware (computers, printers, and air conditioners) for those institutions wishing to use the programs. JHPIEGO projects that the per country cost to set up the program will range from $50,000 for ProTrain to $143,000 for ModCal.

The host-country costs for setting up and maintaining the program are additional. In its "Strategic Plan for Strengthening the Reproductive Health Training System," JHPIEGO estimated that the initial setup of a "computer learning center unit" would be comprised of a room with four to six computer stations, including CD-ROM drives and headphones, one laser jet printer, a 32 inch VCR/monitor, an Internet connection accessible by all computer stations, and appropriate furniture. JHPIEGO further estimated that, depending on the size and needs of the institution, one to five such units would be needed. A MomCare workstation would be highly movable and would include a hardware and software package, an appropriately designed roller cart for easy transport around the outpatient clinic, and telephone access in all the locations where it would be used. These start-up costs would vary from country to country depending on the number of sites; the cost of hardware, software, and furniture; and the extent and quality of the infrastructure and facilities available. There would also be recurrent costs; for ProTrain, JHPIEGO estimates a cost of $9,900 annually per country, principally for salaries and benefits.

4.4.3 The Quality of JHPIEGO's Information Technology Programs

The evaluation team did not assess the technical quality of the ReproSystem programs. The team did, however, note two problems that should be investigated further.

(1) The ProTrain model in Indonesia has a built-in assumption that any provider who has not been trained in JHPIEGO's network is an incompetent provider, requiring further training. This assumption vastly overstates the need for training because many providers may be competent to provide services as a result of training received from other organizations or informal training from competent colleagues. In its comments on the draft version of this report, JHPIEGO notes that data should be gathered from the records of the group or organization doing the training: "If the records show that the MOH, AVSC International, Program for International Training in Health (INTRAH), or any other training organization considered an individual competent at the end of training, s/he is included in the pool of competent trainers by ProTrain."

(2) The telemedicine program MomCare may be too costly in its present form. As cited in the 1997 "Future Directions for JHPIEGO," telemedicine experts at the University of New Mexico and the University of Washington stated that, in their experience, less costly telecommunications media such as the telephone provided the same results as computer-based systems (Bergthold 1997).

4.4.4 Developments in the Information Technology Environment

The world of information technology is changing rapidly. Although many of the countries in which JHPIEGO works do not currently have easy and inexpensive access to the Internet and computer hardware, most soon will. According to recent newspaper accounts, new satellite systems will soon link virtually all countries to the Internet. Also, many organizations and governments are currently setting up on-line services to provide health-care providers with information and training.

Conclusions

1. JHPIEGO has met and exceeded its obligations under the fourth cooperative agreement to produce training packages for a wide variety of FP and RH applications. The quality of these packages is very high and has established the standard for materials development for the many organizations that have adopted them. JHPIEGO has effectively worked with other CAs to coordinate materials and avoid duplication.

2. JHPIEGO should consider further evaluating some of its materials and models. No evaluation of the use of JHPIEGO's written materials has been conducted to determine the appropriateness of reading levels of the materials, the availability of the materials, and the extent to which these materials are used as reference after training. Furthermore, no evaluation has been conducted on the cost-effectiveness of the Zoe model, its availability for trainee practice of clinical procedures, and its durability under field conditions.

3. USAID needs more information on the quality and costs of JHPIEGO's electronic information systems compared to other developments in the field before it can commit to providing substantial additional funds to their development and rollout. USAID should analyze this information with attention to the following issues:

   - Absolute costs—for further development and in-country setup and operation—are high.

   - As noted in the following section on quality, most of the clinical service delivery problems are related to lack of simple skills and to attitudinal problems. It should be determined if technology is the most efficient or effective solution to those problems.

   - FP services are delivered primarily by nurses and midwives. One wonders whether professional schools for these cadres could afford computer-based knowledge programs when nursing schools in Kenya, for example, are concerned about the cost of basic training materials, such as the Zoe model.

RECOMMENDATIONS

1. ***JHPIEGO should evaluate the extent to which written training materials are available and properly used***. This evaluation should also include any barriers—such as reading levels—to effective use by trainees with different educational backgrounds. JHPIEGO should evaluate the cost-effectiveness, durability, and sustainability of the Zoe model. JHPIEGO should also work on developing models that can be inexpensively and locally produced.

2. ***USAID should evaluate the technical quality of JHPIEGO's electronic information programs***. An evaluation of technical quality was contemplated for this evaluation; an additional evaluation should include an analysis of these programs—with regard to overlap, redundancy, and costs—in relation to other electronic programs being developed or implemented by other CAs, donors, and foundations working in the health sector. JHPIEGO should:

    - Delay developing any new computer-assisted modules until the results of this analysis are available,
    - Examine the assumptions underlying the ProTrain program to determine whether the program accurately estimates training needs,
    - Continually monitor developments in the information technology field to take advantage of cheaper and more effective ways to deliver training information, and
    - Implement information technology programs only when they can be shown to be effective and financially sustainable.

5. MAXIMIZING ACCESS AND QUALITY OF CARE

JHPIEGO contributes to PHN *Result 1.4*: "Increased access to, quality of, cost-effectiveness of, and motivation for the use of FP, breastfeeding, and selected RH information and services."

5.1 JHPIEGO's Definition of Quality

JHPIEGO defines a quality FP program as one in which the following conditions apply:

- Care is personalized;
- Clients are treated with dignity;
- Privacy is maintained;
- Clients do not wait long to be served;
- Service providers inform clients about all methods available;
- Service delivery points are clean and client flow is well organized;
- Service delivery points provide services at least during normal working hours and, where possible, attempt to meet the special needs of their client population;
- An adequate supply of contraceptives and consumable supplies are maintained; and
- Supervision is dynamic, working with staff to solve problems.

Furthermore, in a quality FP program, staff should exhibit the following attributes:

- Care, sensitivity, and thoroughness in informing the client about the method chosen;
- Knowledge, attitudes, and skills for providing FP services;
- Knowledge of and ability to recognize real or potential problems;

- Capacity to take appropriate clinical action in response to problems, including knowing when and where to refer clients with serious problems; and

- Good clinical judgment.

JHPIEGO's definition of quality describes the desired process of delivery of quality services. JHPIEGO states that "Providing quality services involves the establishment of measurable standards by which quality can be assessed." When the definition of quality is limited to one that describes process, the measurement of quality is likely to reflect this limited definition and be restricted to measurement tools such as the standardized supervision guide and observation checklist. JHPIEGO's definition of quality lacks the intended clinical outcomes (e.g., improvements) of quality service:

- Complication rates,

- Continuation rates,

- Acceptor rates (especially for specified targeted populations),

- Balance of method mix,

- Client satisfaction, and

- Failure rates and achievement of clients' reproductive goals.

Although a good process is certainly correlated with the above clinical outcomes, it is not sufficient to guarantee them.

5.2 Impact on Quality

5.2.1 Reproductive Health and Family Planning Service Guidelines

One of JHPIEGO's major strategies for improving quality of care has been to introduce country-specific standards through RH/FP service delivery guidelines. These guidelines address what services will be offered, who will receive them, who will provide them, and at what level of quality they will be delivered. The guidelines include technical specifications for service delivery and can, therefore, be used as a foundation for pre-service and in-service curricula development and for service delivery. The guidelines are intended to influence service providers to modify their practice patterns to comply with guidelines and standards. JHPIEGO's development of these guidelines has been cited by many USAID missions as a significant contribution to availability and quality of training, and service delivery in their respective countries.

Under the third and fourth cooperative agreements, JHPIEGO has assisted in developing RH/FP service delivery guidelines for 21 countries, often in collaboration with AVSC International. JHPIEGO has developed a benchmarking system for the development of national service guidelines:

- **Level 1**. Host-country officials are sensitized on the need for revising guidelines, knowledge is updated, and consensus reached.

- **Level 2**. Host-country advisory groups are formed, draft guidelines are produced, medical barriers are addressed, and guidelines are externally reviewed.

- **Level 3**. Documents are published.

- **Level 4**. Documents are officially endorsed by policy makers.

- **Level 5**. National RH/FP service guidelines are adopted.

- **Level 6**. National RH/FP service guidelines are disseminated.

The benchmark achieved by each country is tracked. For example, Uganda is at Level 1; Senegal at Level 3; and Indonesia has disseminated its guidelines. About two-thirds of the 21 countries have reached Level 4 or higher.

Compliance with Standards

In 1996, the Lewin Group prepared a review of the literature concerning compliance by service providers with service guidelines. This review resulted in the following findings:

(1) Compliance is more likely if the guidelines are brief;

(2) Compliance increases as involvement in the development of the guidelines increases; and

(3) The use of guidelines as the only information source is not sufficient to change provider behavior, but in combination with other sources, guidelines may produce behavior change.

Using these findings as the basis for assessment, one can make the following observations concerning the likelihood of the RH/FP guidelines improving quality of services:

(1) The amount of detail included in the guidelines varies from country to country. In Kenya, the guidelines are quite brief. In Nepal, the guidelines are long and are

written at a level of detail required for training, but not at a level required for policy.

(2) Comments on the processes for developing RH/FP service delivery guidelines have been mixed. USAID's missions have described JHPIEGO's approach as "collaborative and communicative in style," and "an effective, inclusive approach, i.e., multisector working groups." Missions have further reported that the policy makers, who in some cases were initially unaware of the necessity for guidelines and reluctant to develop them, were eventually very supportive and proud of their roles in the development of the guidelines. However, criticism has been leveled by other CAs that the guidelines (1) at times been too uniform from county to country, reflecting a "cookie-cutter" approach; (2) sometimes developed too rapidly (within a couple of months) for full ownership by host countries to occur; and (3) have utilized too much of a "top down" and not enough of a "bottom up" approach.

(3) No established strategies for determining the degree of compliance to the RH/FP guidelines exist. Therefore, their impact cannot be determined.

While JHPIEGO's benchmark system follows the development, approval, and distribution of the RH/FP service delivery guidelines, no systematic approach to monitoring and increasing compliance to guidelines has yet been developed. Such an approach should answer the following questions:

- Who will monitor compliance?
- Which aspects of compliance are most important?
- How will compliance be monitored in a feasible and affordable manner (e.g., exit interviews, site visits, service statistics, focus groups, acceptor levels for underserved groups, sampling for failure rates and continuation rates, etc.)?
- Who will be responsible for developing strategies to increase compliance?

Another way in which the RH/FP guidelines vary from country to country is the range of RH services that they address. In Kenya, the guidelines focus almost exclusively on FP, whereas in Peru, the guidelines also address maternal and child health, infection prevention, STDs, and adolescent health.

5.2.2 The Impact of Training on Quality

The range of methods in JHPIEGO's training curricula and in its contraceptive technology updates (CTUs) has varied somewhat from country to country. In Indonesia, the CTU training courses, which represented a significant portion of the recent clinical training, were limited to courses on

Norplant implants and IUD methods. In Russia, the mission requested that breastfeeding and lactational amenorrhea method (LAM) be included in the training offered. Breastfeeding and LAM were introduced by MotherCare in two of six demonstration sites, and were positively received. In Nepal, JHPIEGO took the lead in developing the Comprehensive Family Planning Course for health post workers. Appropriately, the trend has been for JHPIEGO to increase the comprehensiveness of its curricula and CTUs.

JHPIEGO's training is almost universally described as being of high quality. The impact of its training on the quality of services is less recognized. According to JHPIEGO, the effect of training on quality cannot be assessed in isolation from other elements of a RH/FP program, such as service delivery, IEC, research, and logistics. Partly because of such thinking, JHPIEGO has been criticized by other CAs and by USAID's missions for failing to adequately follow-up on training at service points to assess its impact and to revise the training to improve service delivery.

JHPIEGO has led the training in infection prevention (IP) for RH/FP services. It has organized a global IP course and regional courses. It has also included IP in every country strategy and has made IP an essential element in the RH/FP training programs for in-service and pre-service providers. In spite of these extensive efforts, there has been no documentation of a decrease in morbidity as a result of changes in IP practices. The only type of study of the effect of IP training that has been done is a Level 3 evaluation. This evaluation involves observing service delivery after training to assess the extent to which IP practices are being used. The IP standards, as taught by JHPIEGO, are a recognized ideal. The degree to which clinical outcomes are affected by deviation from this ideal, and the areas where compliance are most important, are not known. For example, in the case of IUD insertion, it is difficult to determine how much reduction in pelvic infection is actually achieved as a result of the adoption of JHPIEGO's IP standards. Without this information, the extent to which quality is improved and the cost benefit of IP training cannot be assessed.

In developing guidelines and improving training approaches and materials, JHPIEGO has established the necessary foundations for improving quality of care. Given the status of policies, training, and materials when this cooperative agreement started, JHPIEGO's emphasis on quality seems appropriate and strategic.

5.3.2 The Cadre of Participants

As reported in JHPIEGO's 1996 "Annual Report," during that year approximately four times as many physicians as nurses and midwives participated in JHPIEGO's courses in training skills. However, the proportion of participants in cadres lower than nurses and midwives comprised almost half that of the number of physicians trained. In the case of service provider training, the proportion of physicians trained was more than five times that of both nurses and midwives and of cadres lower than nurses. FP services actually are delivered primarily by nonphysicians.

5.3 Impact on Access

5.3.1 Men's Access to Family Planning Services

JHPIEGO's only specific activity to increase access for men to FP services has involved its non-scalpel vasectomy training in Kenya and Nepal. Increasing access for men has not been a focus for JHPIEGO since the organization does not view this as primarily a training issue.

5.3.2 Adolescents

JHPIEGO has been involved in a major initiative in Bahia State, Brazil, to strengthen adolescent reproductive health (ARH) policy, training, and services. One of JHPIEGO's major efforts has been the development of a course in ARH for service providers. The course addresses the attitudes of clinicians toward adolescents and the unique needs of adolescents. No new clinical skills, per se, are taught in the ARH course. JHPIEGO has also helped establish links between schools that adolescents attend and service delivery points where adolescents could receive services.

5.3.3 Postabortion

JHPIEGO is piloting a postabortion care (PAC) course in Nepal. This course trains providers in the newly introduced use of manual vacuum aspiration under local anesthesia in an outpatient setting, as an alternative to sharp curettage under general anesthesia in an inpatient setting. Although JHPIEGO states no expectations for decreasing morbidity or mortality with this approach to PAC, it does anticipate dramatically reducing the length of hospital stays and significantly increasing access to FP because of this channeling of services to the outpatient settings. Preliminary results from Nepal support these expectations. As yet, postabortion IUD insertion is not an integral part of this training.

5.3.4 Postpartum

Unlike its comprehensive approach to postabortion care, JHPIEGO has approached postpartum FP in a narrower context. For example, in the *PocketGuide for Family Planning Service Providers* (JHPIEGO 1996), the methods that should be offered to postpartum women are described, but the method for providing those services is not addressed. The role of services such as prenatal counseling, postpartum counseling and services, and the unique opportunities and responsibilities associated with organizing services in a postpartum setting are not addressed in the pocketguide. Furthermore, JHPIEGO's efforts to address training for postpartum IUD insertion have been minimal.

Conclusions

1. JHPIEGO's definition of quality assumes that following a good process of providing services is sufficient to ensure the achievement of positive clinical outcomes such as decreased complication rates and increased continuation rates. In fact, factors other than the process of providing services can affect clinical outcomes. Only when indicators for clinical outcomes are defined and then measured can performance targets be established and strategies for improvement developed. Any strategy for improving services would include training, an area in which JHPIEGO would have the most direct influence.

2. In view of the Cairo mandate, comprehensive guidelines addressing RH more broadly than FP (e.g., essential maternal health care) are desirable. The guidelines should be brief and host-country nationals should be involved in their development as much as possible. RH/FP service guidelines are likely to be a significant contribution to quality, especially if they are used as the basis for developing training curricula. The effectiveness of these guidelines in changing practice patterns is less clear. JHPIEGO's introduction of the concept of standards could be an excellent foundation for introducing the follow-on concept of quality assurance.

3. The impact of JHPIEGO's training on the quality of services is not routinely assessed. JHPIEGO is certainly justified in stating that training is not the only factor that affects quality of clinical services. Therefore, the organization should not be held accountable to USAID for service quality. This does not mean, however, that JHPIEGO should not routinely assess quality of services and attempt to determine the impact of its training programs on quality, with a view to improving the quality and the cost-effectiveness of training.

4. Although there has been a decrease in the proportion of physicians—as compared to nonphysicians—trained in service provision and in training skills, physicians continue to be significantly overepresented, given the extent to which they directly provide services as compared to nonphysicians. The quality of services could be more dramatically affected by further focusing JHPIEGO's training efforts toward nonphysicians.

5. Adolescent reproductive health (ARH)—although an important access issue—is not primarily an issue that is properly addressed through training, although training may be a part of the strategy. Policy development, advocacy, referral systems development, and increased provider sensitivity to ARH should be the central parts of any strategy aimed at improving access to services for adolescents.

6. JHPIEGO is using advocacy, in combination with training, to change the way postabortion services are offered. It is an exciting approach and one that is likely to significantly improve access to FP services for postabortion clients.

7. JHPIEGO is missing opportunities to increase access for postpartum clients because of its lack of attention to the need for and strategy to improve the way services are offered to postpartum women.

RECOMMENDATIONS

1. ***JHPIEGO should expand its definition of quality of services*** to go beyond a definition that is limited to the process of providing services, to one that includes clinical outcomes, such as continuation rates, complication rates, client satisfaction, and acceptor rates (especially for targeted groups). This expanded definition would lead to more strategic plans for improvement to include, but not limited to, training interventions.

2. ***JHPIEGO should utilize policy and advocacy as strategically as possible***, in combination with training, to increase access to services for postpartum and adolescent clients. Training for postpartum and postabortion IUD insertion should be considered. In the case of adolescents, any training should be limited to brief sensitivity raising workshops; policy and advocacy would play the larger role.

3. ***JHPIEGO should take the next steps in providing leadership in quality of care issues.*** JHPIEGO should routinely assess the impact of training on service. It should also work in collaboration with projects such as the Quality Assurance Project to develop feasible strategies to monitor compliance with RH/FP service delivery guidelines in key service areas. Where JHPIEGO notes failure to comply with standards, it should develop strategies to increase compliance.

4. ***With regard to cadres and clients, JHPIEGO should continue to increase the proportion of its interventions directed toward nonphysicians as opposed to physicians.*** As it is beginning to do with postabortion clients, JHPIEGO should utilize policy and advocacy as strategically as possible, in combination with training, to increase access to services for postpartum and adolescent clients. JHPIEGO should consider providing training for postpartum and postabortion IUD insertion.

6. MONITORING AND EVALUATION

6.1 JHPIEGO's Monitoring System

JHPIEGO's monitoring of program accomplishments has improved considerably during the fourth cooperative agreement. JHPIEGO's monitoring efforts have moved from paper files to a computer-based, network system—the Automated Program Monitoring System (APMS). This monitoring system is decentralized; regional offices now enter data directly and have direct access to that data. APMS has added a systems perspective with benchmarks that can map a variety of outcome perspectives (USAID's Results Framework and the monitoring system of other donor systems) to the input-based system and the older, activity-based system. JHPIEGO reports that the monitoring system can track the trainer development pathway of individual trainers and the competencies of trainers through knowledge assessments and assessments of training skills using checklists. The system does not, however, track the training of service providers, nor does it monitor the learning of and changes in job-related skills of service providers.

6.1.1 The System's Contribution to USAID's Results Framework

JHPIEGO's APMS system has been redesigned to be consistent with USAID's Results Framework. The system's purpose is to provide useful, timely information to USAID and JHPIEGO's managers on the indicators of results in the fourth cooperative agreement, cross-referenced with the PHN Results. In theory, the APMS would produce a report to USAID on the nine indicators in the cooperative agreement, as well as on activity-level indicators requested by USAID on a quarterly or biannual basis. In reality, over a year passed between finalization of JHPIEGO's most recent portfolio review, which was shared with the team at the end of this evaluation, and the previous review. This portfolio review lists activities, such as workshops, technical assistance visits, and meetings, under the heading of a PHN Result. In terms of USAID's Evaluation Project Framework, these are all at the process level.

Potentially more useful in assessing JHPIEGO's contribution to USAID's Results Framework is JHPIEGO's system of programmatic milestones—benchmarks—for each indicator in the cooperative agreement.[9] These benchmarks would take JHPIEGO's contributions beyond the activity level (e.g., a workshop or meeting) to the level of outputs and institutionalization of standards or practices. JHPIEGO presented data ("selected cooperative agreement commitments") related to three of PHN's four Intermediate Results in the latest portfolio review. Those results were as follows:

[9] JHPIEGO shared examples of the system. The team was not able to review the complete system of benchmarks for all indicators.

- *Result 1.1*: "New and improved technologies and approaches for FP programs;"
- *Result 1.2*: "Improved policy environment and increased global resources for family planning programs;" and
- *Result 1.3*: "Enhanced capacity for public, private NGO, and community-based organizations to design, implement, evaluate, and finance sustainable FP programs."

JHPIEGO's work on the indicators for *Result 1.4*: "Increased access to, quality of, cost-effectiveness of, and motivation for the use of FP, breastfeeding, and selected RH information and services" does not appear to be developed to the same level as that of the other three results. JHPIEGO notes that contributions to PHN *Result 1.2* and *Result 1.3* also contribute to *Result 1.4*; however, the only standard indicator relating to increased access or quality is one on medical barriers. There are no indicators to measure increased access as a result of the number of providers being trained, or improved quality as a result of improved provider competence.

6.1.2 Usefulness for Management Decision Making

The APMS system was designed primarily to track JHPIEGO's training events. Increasingly, however, JHPIEGO's field offices are contributing to training systems through long-term consultation and technical assistance activities, which are not tracked through the system. JHPIEGO's field-based staff reported that the APMS underestimates activities such as technical assistance and meetings that contribute directly to JHPIEGO's results. This limits the usefulness of the system for monitoring and decision making. Another weakness of the system is that it does not adequately link costs with levels of effort or results. This also limits the usefulness of the system for management decision making. Finally, the system does not adequately track trainers and service providers that were not directly trained by JHPIEGO. Therefore, it is not possible to determine how many service providers are trained by JHPIEGO's training networks. The system also does not track the competency of the service providers trained and whether these providers are conducting the clinical procedures for which they were trained.

6.2 JHPIEGO's Research and Evaluation Programs

JHPIEGO has developed and institutionalized a training evaluation system based on Kirkpatrick's four-level model (Kirkpatrick 1994) of training evaluation:

(1) Participant Reaction (Level 1) data are routinely collected during and after JHPIEGO's training events.

(2) Participant Learning (Level 2) is evaluated by trainers using standardized assessment tools, including tests of knowledge and observation of trainee skills using standardized checklists. Again, this evaluation is done only on trainees trained directly by JHPIEGO and does not get to the service delivery level.

(3) On-the-job Application (Level 3) following training is evaluated on an as-needed basis, generally through observation of trainee performance using performance checklists.

(4) Outcome of Training (Level 4) evaluations are rarely done because they are expensive and require rather sophisticated evaluation designs to identify the impact of training on program outcomes.

JHPIEGO has conducted evaluation studies on the results of training in five countries: Ghana, Kenya, Philippines, Zimbabwe, and Nepal. Most of these studies are Level 1 and Level 2 evaluations that show levels of trainee satisfaction with training and levels of learning at the end of training.

JHPIEGO's 1990 report on the evaluation of the minilaparotomy training in Kenya for 18 medical officer and nurse teams (Bhatia 1990) included a Level 3 evaluation of the impact of training on the performance of the trainees approximately six months after training. This follow-up of training impact was based on on-site observations and interviews with trainees and their supervisors. In this follow-up evaluation, trainees reported satisfaction with the training and stated that the training had improved their clinical skills. Although JHPIEGO's report concludes that the training "assisted medical officers in improving their performance," the data show several problems. Of the 18 trainees, 12 were actually observed performing minilaparotomy procedures; 7 of the 12 (58 percent) were rated as "good" or "very good" in their physical examinations, preoperative assessments, and in their surgical skills. The inability of some medical officers to perform well was primarily because of their poor techniques in manipulating the uterus to visualize, identify, and lift the tubes. The procedure therefore, took between 45 to 60 minutes and caused excessive client discomfort. No data were provided on the level of these trainees' skills before training. The report further states that of the 18 hospitals in which the trainees operated, only 7 had adequate operating room facilities. Although this study was conducted in 1990, it shows the importance of evaluating trainee performance to correct problems that occur when training is transferred to the job.

A 1993 follow-up of the same trainees showed other serious problems (Lacoste 1993). In the three years since their minilaparotomy training, only 9 of the 41 (21 percent) physicians interviewed had been in facilities and job positions that enabled them to perform the services for which they had been trained. When asked about constraints to the provision of minilaparotomy services in their facilities they reported, "not being in a job position to regularly perform the procedure, insufficient supplies, and lack of clients." The recommendations for dealing with these problems included several ways that training could be strengthened and work could be done to ensure that trainees are provided the opportunity and materials needed to perform the services for

which they are trained. This evaluation epitomizes how important non-training issues are to provider performance and why JHPIEGO's strategies should identify all critical HRM issues, such as deployment in Kenya.

USAID/Indonesia is planning to conduct an evaluation this year that will link training to job performance and quality of service (Levels 3 and Level 4) to determine the impact of JHPIEGO's curricula and training on provider behavior and quality of client care. The evaluation questions to be addressed are as follows:

- Do the doctors and midwives who received training follow the standards they were taught when they return to their practice?

- Are the clients of trained providers better informed, more knowledgeable, and more satisfied? Do these clients suffer less trauma and have fewer complications and side effects?

USAID/Indonesia's evaluation study will also seek to identify the factors other than training that may affect provider behavior and client outcome. These factors include lack of supplies and equipment for sterilizing instruments, length of training, and number of trainees trained per course.

Conclusions

1. JHPIEGO's system of programmatic milestones—benchmarks—is interesting and makes a valuable contribution to USAID's and CA's attempts to establish indicators for institutionalization and sustainability. Routine reporting on those benchmarks would enable USAID to more fully assess JHPIEGO's contribution to each indicator in the cooperative agreement. Further work on linking JHPIEGO's interventions with PHN *Result 1.4*: "access, quality, cost-effectiveness of, and motivation for..." is warranted. As noted in the conclusions and recommendations in the previous section, JHPIEGO should develop feasible strategies to monitor priority aspects of service to measure the impact of training on service delivery.

2. JHPIEGO has strengthened its monitoring capability considerably, but it is not yet capable of monitoring costs at an activity level. This lack of capability limits JHPIEGO's ability to monitor and manage efficiency.

RECOMMENDATIONS

1. ***JHPIEGO should develop indicators and benchmarks for quality***, supporting PHN's *Result 1.4*. These indicators and benchmarks should be complemented by a research and evaluation program that will address the following questions:

- Does JHPIEGO's training approach produce results in improved quality of provider service and quality of care for clients?
- What is the evidence that compliance with JHPIEGO's guidelines has resulted in quality of service outcomes?
- What are the minimum standards that must be followed to provide quality care?

2. ***JHPIEGO should develop the capability to monitor efficiency in its program activities***, by tracking costs at an activity level.

7. ORGANIZATIONAL AND MANAGEMENT STRUCTURE

7.1 Structure and Staffing

7.1.1 Congruence with Mission/Mandate and Strategies

JHPIEGO's Mission/Mandate

In theory, an organization's structure should be congruent with its organizational strategy; the strategy is elaborated to achieve the organization's mission or mandate. Therefore, to discuss the questions in this evaluation about the effectiveness and efficiency of JHPIEGO's organizational and management structure, there must be an understanding of JHPIEGO's mandate and strategies. In its 1996 "Annual Report," JHPIEGO writes that the five strategic objectives (See Section 1.1.2) of its cooperative agreement with USAID "define" its mission.

When asked about the advantages and disadvantages of expanding JHPIEGO's mandate—specifically in terms of including the front-line providers currently targeted by PRIME—USAID's missions responded affirmatively. Of the 10 missions and regional offices that responded to this question, 8 responded that one CA could handle all clinical training in-country. They cited several reasons for this response. First, these missions and regional offices are short staffed, and having fewer CAs with broader mandates lessens their management burden. Second, as one mission put it, "It is somewhat of an artificial gap to separate family planning training between the two CAs." The missions show a clear trend toward recruiting fewer CAs to work more broadly. USAID/Jakarta is reducing its number of CAs from 25 to 12. In Bangladesh's newly designed bilateral program, the amount of CAs has been reduced from 20 to 7, with limited additional field support from several CAs or projects.

Without any formal broadening from G/PHN/POP of JHPIEGO's mandate at the country and regional levels, such broadening of mandates has occurred. In numerous countries, JHPIEGO is responsible for doing more than simply the clinical training of higher level cadres. JHPIEGO has assumed these broader responsibilities in response to both mission requests and local realities and needs. For example, the REDSO/WA has four CAs implementing the FHA/WCA; JHPIEGO is responsible for all training, including management training. Through the Regional Economic Support Office/East Africa (REDSO/EA), JHPIEGO is assisting in the institutional development of CAFS; JHPIEGO is directly providing technical assistance in training and is supporting management development through a subcontract to a local commercial firm. In Nepal, in collaboration with other CAs, JHPIEGO is working on the MOH's policies on personnel deployment.

JHPIEGO Strategies

Following are JHPIEGO's organizational strategies. Some of these strategies have been explicated (the first two of the following strategies), others are deduced from examining how JHPIEGO works.

- Development and refinement of an effective training approach (i.e., competence-based, mastery learning) that strengthens national RH training systems.
- Application of mastery learning to selected RH topics with emphasis on clinical FP training of health professionals.
- Baltimore-based direction and management.
- Broad project involvement. In the program year 1996, JHPIEGO had 49 in-country and regional projects and 5 global projects, ranging from very small projects—expenditures of $4,317 for a regional project in Latin America—to very large projects—expenditures of $1,355,408 in Indonesia.
- Responsiveness to local conditions and opportunities.[10]

7.1.2 Current Structure and Staffing

JHPIEGO has 103 Baltimore-based staff, plus host-country staff in field offices in Kenya (five full-time positions), Nepal (six full-time positions, two of which are currently vacant), Indonesia (six and a half full-time positions plus five part-time M.D. positions,) and REDSO/WA. Additionally, JHPIEGO has representatives in Turkey, Uganda, and the Philippines. (See Appendix H for the current organizational chart.) In the near future, JHPIEGO will make the following changes to this structure:

- The information technology office (ITO) will disappear and the South Asia and Southeast Asia offices will merge.
- The position of vice president for programming will be deleted with the closure of the ITO.

[10] JHPIEGO tries to be responsive in this manner. Most missions stated that JHPIEGO was very responsive to local realities and mission requests. However, several missions described JHPIEGO as being inflexible and dogmatic.

- Any ambiguity that the vice president position may have entailed relative to the positions of the president and executive director will cease.

- Eleven personnel will leave JHPIEGO with the closure of ITO and with the spin-off of Learnware in September and October of 1997.[11] See the current organizational chart in Appendix H.

Recently, JHPIEGO created what it refers to as decentralized regional offices, or Baltimore-based units with limited authority. According to JHPIEGO's senior management, decentralization "means that decision making is more widely shared than previously." Senior management states that anything within the workplan—previously approved by the management group—can be handled by the regional office; any new programmatic or financial decision making goes to the management group.

As indicated, JHPIEGO has field offices in three countries and representatives in four other countries. The field offices, which express appreciation for the strong support Baltimore gives them, admit to having limited authority. These field offices report that decisions on the support Baltimore will give them (e.g., choice of consultants and amount Baltimore charges to their budgets) are made in Baltimore; the field offices have input into and information on only the field-based costs for their countries. In FY 97, such field-based costs represented 17 percent of costs in Nepal and 39 percent of costs in Kenya. JHPIEGO's Baltimore office reports a more consensus-oriented, decision-making process.

The SOW for this evaluation called for an assessment of the efficiency of JHPIEGO's organizational structure. Such an assessment is impossible to perform because it requires comparing the unit costs of activities, and JHPIEGO does not have cost data at the activity level. JHPIEGO, appropriately, would like to know with whom it should compare its unit costs (e.g., for a ten-day training event) when it does have such data (e.g., with AVSC International, which is not university-based or with the Harvard Institute of International Development, which has a more comparable organizational structure but has a very different mandate). From a strategic perspective, JHPIEGO should compare its data with the data of its competitors, because JHPIEGO will be functioning in a more competitive environment in the future.

However, even without comparative costs, the following efficiency-related issues are apparent:

---

[11] JHPIEGO described Learnware as an "information technology company registered in the State of Maryland as a limited liability company ... it is in negotiation with Johns Hopkins University which could be of substantial benefit to JHPIEGO. This company is prepared to offer JHPIEGO an equity interest in the company and/or a royalty payment in exchange for assignment of copyright to JHPIEGO's information technology products." (From a memo dated May 5, 1997, from Dr. Robert Johnson, Executive Director of JHPIEGO, to Estelle Quain, G/PHN/POP.)

- There is a heavy reliance on Baltimore-based staff rather than on regional consultants. The routine production of materials in Baltimore could be replicated in country;[12]

- Actions from the field office must pass through four layers of accounting. Actions must pass through an accountant in the field office, an accountant in the regional office in Baltimore, and an accountant in JHPIEGO's corporate offices. Finally, the actions are reviewed at JHU.

While reviewing JHPIEGO efficiency-related areas, the team observed that in the early years of the cooperative agreement there had been a relatively high turnover of female senior staff. Over four years, the turnover for senior female staff had averaged 21 percent (total of 19 women departed), while for men, it averaged 9 percent (total of 5 men departed). Senior female turnover has declined, however, over the cooperative agreement and was 8 percent for the six months previous to this evaluation.

According to the missions' responses to G/PHN/POP's query, missions would like JHPIEGO to provide more rapid administrative response, more in-country representation, and greater delegation of authority to the field. Table 2 summarizes JHPIEGO's current organizational structure and the missions' responses to G/PHN/POP's e-mail.

[12] JHPIEGO spreads the cost of its printed materials across large and small programs. Replicating printed material in country would be an advantage to a USAID mission with a relatively large program and a disadvantage to a small country program. As USAID missions become more results driven and cost conscious, the cost of producing materials in Baltimore and shipping them to Bolivia or Nepal may become more important.

Table 2

Current and Desired JHPIEGO Field Presence

Type of JHPIEGO Field Presence	USAID Mission	Missions Indicating a Desire for More In-country Representation and/or Greater Delegation of Authority to Field
Country Office (with expatriate staff)	Nepal, Kenya, Indonesia	Kenya
Local Representation	Turkey, Uganda, Philippines, REDSO/WA	Turkey
No country office or local rep (although, perhaps local consultants)	Russia, Guatemala, Peru, Brazil, Ecuador, Bolivia, Guinea, India, Morocco, Ukraine, Mali	Russia, Guatemala, Peru, Bolivia, Ukraine, India

7.2 Financial Management

7.2.1 New System and Directions

In FY 95, JHPIEGO adopted a project-based cost structure to conform to changes in the Office of Population's funding process. The objectives of this new cost structure are (1) to capture as many direct costs as possible at the project level and (2) to "fully load" each project with attributable costs for training, development, and program management to recover 100 percent of these costs at the project level. To achieve one of these objectives, JHPIEGO first began charging costs such as salaries, travel, and consultant fees directly to country project accounts.

Second, JHPIEGO established a cost pool; it assigns to this pool those costs that are not specific to a particular project and that were previously covered by core funding. JHPIEGO distributes these costs to individual projects on a percentage basis: 38 percent in FY 97. Additionally, the JHU indirect cost rate of 18 percent is applied to each project.

These changes in cost structure do enable JHPIEGO to cope with the loss of core funding and to identify project costs. However, although there is detailed budgeting at the activity level in the regional offices, there is no financial reporting at the activity level. According to JHPIEGO, this is because of JHU's accounting system. JHPIEGO, however, recognizes that it would be advantageous to develop more sophisticated financial reporting. As USAID funding declines and missions become more results driven and cost conscious, and as CAs' mandates broaden and

competition increases, JHPIEGO must adapt and be able to compete with other CAs that can produce such financial documentation.

USAID continues to be JHPIEGO's main client. Funding from USAID represents 97 percent of JHPIEGO's total budget; the fourth cooperative agreement represents 86 percent of the total. JHPIEGO is attempting to diversify beyond the cooperative agreement and beyond USAID. As with its financial reporting, JHPIEGO is aware of the issue of diversification and indicates that it is seriously attempting to address this issue. The competitive award to JHPIEGO of the Regional Economic Development Support Office/West and Central Africa (REDSO/WCA) project is a good first step.

Conclusions

For JHPIEGO, a broader mandate is appropriate for a number of reasons:

1. As discussed in Chapter 3, training alone will not necessarily lead to improved provider competence. Training may be a necessary input, but it is seldom a sufficient input to lead to the desired improvement of competence. To contribute most effectively to reaching the objective of sufficient, competent clinical personnel who are deployed, supervised, and motivated throughout the service delivery system, JHPIEGO must have a broader perspective than simply training. This is not to say, necessarily, that JHPIEGO should be working in deployment or supervision. However, JHPIEGO should have a clear idea of the quality problems, which of those problems results from personnel performance, and what measures, including training, should be taken to improve that performance. JHPIEGO could then develop a plan laying out interventions to improve performance and identify which donor or CA is providing these interventions. JHPIEGO would intervene on a country-specific basis in response to USAID and in collaboration with other in-country CAs.

   The responsibility for such a national vision and plan is explicit in PRIME's contract. The contract also explicitly directs PRIME to work on the "enabling environment" that surrounds training. However, it is no longer the case that all of these important projects work in all of USAID's program countries; the presence of PRIME (or any other project and CA) in a country can not be assumed. If PRIME and JHPIEGO are working in the same country, then PRIME, JHPIEGO, and USAID would have to ensure that there is no overlap of activities. Overlapping mandates do not necessarily involve overlapping activities.

2. A broader JHPIEGO mandate would be responsive to the missions' new realities of reduced staffing and the resulting mission desire for fewer CAs—each of which can do more—in-country.

3. JHPIEGO's organizational structure and staffing have been effective. As indicated throughout this report, JHPIEGO has achieved the outputs outlined in their cooperative agreement. Most missions are highly satisfied with the quality of JHPIEGO's work. In addition, host-country partners are satisfied, and JHPIEGO's collaboration with these partners is judged to be good or excellent. JHPIEGO's planned revisions to its original structure are useful. However, further revision would be to JHPIEGO's advantage. JHPIEGO's structure, which retains authority in Baltimore and within the management group in Baltimore, is no longer suited to the opportunities and requirements of its major client. In this new USAID era, JHPIEGO must be more in touch and immediately responsive to USAID's missions. If JHPIEGO is to succeed in this regard, where the size of the country program permits, it must establish more field offices and give field and regional offices greater authority to make decisions on programmatic (versus policy) matters.

4. For JHPIEGO to be competitive, it must continue to work on its financial management system, notably activity costing. The data on the cost of activities should be used for decision making and should enable JHPIEGO to plan and manage with maximum efficiency.

RECOMMENDATIONS

1. ***The Office of Population should expand JHPIEGO's mandate***, in the next cooperative agreement, to that of clinical human resource development, focusing on improving the performance of clinical service providers. JHPIEGO's main activity would continue to be training, but with a greatly increased emphasis on pre-service. JHPIEGO would be directed to look at quality at the clinic level through interpreting service delivery assessments conducted by other CAs or, in their absence, by collecting data to identify the role that developing and managing clinical providers plays in those quality issues. Where necessary, appropriate, and feasible (i.e., where technically warranted to address issues of clinical provider competence, politically feasible, as requested by USAID Missions, and avoiding overlap with the activities of other CAs), JHPIEGO should address those clinical provider issues through the following actions:

    - Advising on medical, nursing, and midwifery school and college recruitment, including appropriate numbers and types of student;

    - Advising and assisting to develop the clinical faculty and curriculum of such FP/RH professional education; and

    - Advising on medical, nursing, and midwifery school and college deployment, including appropriate numbers and types of clinical graduates and service providers necessary in specific catchment areas according to national service delivery guidelines.

2. ***JHPIEGO should more fully decentralize***—true delegation of authority—to regional offices, and from regional offices to existing field offices.[13] Current and future field offices should be delegated—in a prudent but timely manner to ensure responsiveness with their principal client's needs—the authority to handle programmatic and financial decisions

[13] JHPIEGO's definition of decentralization (decision making more widely shared than previously) is a more limited interpretation than is usually encountered in the management field. "Decentralization is about power. The term is usually used to describe the transfer of power from higher to lower management levels in diverse organizational settings, although the degree of power that is transferred varies widely. It can mean transferring control over specific management functions, such as planning and budgeting, from central offices to field offices, or shifting the responsibility for an entire program to an institution with a distinct geographic boundary, such as a provincial or district government." "Decentralizing Health and Family Planning Services," *The Family Planning Manager*, Family Planning Management Development, Management Sciences for Health, Volume IV, Number 2, March/April 1995.

under a specific financial limit. Policy-related decisions should continue to be handled by JHPIEGO's Baltimore office. In line with the broader mandate presented above and in response to the needs of USAID's missions, JHPIEGO should open additional field offices, with delegated authority, where the volume of the work and the level of funding permits.

3. ***JHPIEGO should continue developing its financial management and reporting system to the activity level***. The data generated by that system should enable JHPIEGO to analyze, control, and reduce costs and to present the corporation as a cost-effective and efficient organization in the global arena.

8. SUMMARY OF FUTURE DIRECTIONS

8.1 Program Priorities

8.1.1 A Broader Mandate

As mentioned in the recommendations in the previous section, the Office of Population should expand JHPIEGO's mandate in the next cooperative agreement. This broader mandate would lead JHPIEGO's mandate to overlap with other CAs, particularly PRIME and AVSC International. However, as discussed throughout this report, the broadening of country programs is apparently driven by mission wishes. Overlapping mandates does not mean overlapping activities. Each USAID mission, striving to achieve results within a limited budget, would presumably be highly motivated to select the appropriate CA based on performance, including collaboration, and costs.

The important gap in the development of clinical health professionals was the lack of a national human resource management development plan in every country. It is PRIME's responsibility to develop such a plan, taking into account the country's stage of development and the overall enabling environment. However, while PRIME does not work in every country, every country in which USAID is investing heavily in human resource development should have such a plan.

8.1.2 A Country-specific Balance Between Pre-service and In-service Training

JHPIEGO's training efforts are divided with about 40 percent devoted to pre-service training and 60 percent devoted to in-service training. While there is no hard data to indicate which of these two methods is more cost effective or sustainable, there are many opinions on the subject. Most of USAID's missions strongly stated a desire for JHPIEGO to work increasingly in pre-service training; CA collaborators believe pre-service training is JHPIEGO's unique niche. However, there is a clear, continuing need for in-service training in countries where there is a backlog of untrained providers. With regard to providing services, speed is important and professional schools are very weak. The appropriate approach (pre-service versus in-service or a combination of the two) must be decided on a country-specific basis depending on the country needs assessment (service delivery issues such as quality, access, human resources, urgency of provider problem, educational and training resources, and stage of program development), the mission and host-country's plans and priorities, and the contributions of other CAs and donors.

8.1.3 Compliance with Reproductive Health and Family Planning Guidelines

JHPIEGO should work in collaboration with projects such as QAP to develop feasible strategies to monitor compliance with RH/FP service delivery guidelines in key service areas. Where JHPIEGO notes a failure to comply with standards, it should develop strategies to increase compliance. JHPIEGO should routinely assess the impact of training on service.

8.1.4 Other Technical Areas

Most missions expressed a desire for JHPIEGO to continue to maintain its focus "by sticking to the basics" of FP and not lose its focus by taking on too many other RH issues. When questioned about new areas they would like JHPIEGO to address, the missions and the MOHs did not mention cervical cancer (unassisted visual inspection [UVI]) as a priority RH issue, but they did mention STDs and essential maternal services as desired areas for JHPIEGO's increased involvement.

There are several attractions to addressing essential maternal care. It is not a new service that needs to be introduced; it is a service that already exists, in some form, in most communities. However, major improvements in quality are needed. The importance of maternal health is recognized intuitively by both the recipients (pregnant women) and those working in health care systems. Many significant improvements in quality and reductions in mortality can be made without introducing new technologies. Instead, strategic reorganization of services and training are needed. Finally, addressing maternal care issues can make a potentially large impact on the well-being of the family, because preventing the death of the mother prevents the loss of the primary care giver for the surviving children.

With regard to STDs, JHPIEGO states that, "Currently, the most neglected area of health in many countries is the management of STDs, which have a devastating impact on populations, particularly women." STDs have a greater incidence in the younger reproductive age women; therefore, their potential long-term negative impact is great.

In contrast to maternal mortality and STDs, cervical cancer is a disease of older women. The reduction of deaths from cervical cancer has less impact on families and on life expectancy than maternal mortality. The importance of cancer screening is not well appreciated or considered a priority in most developing countries; this is a service for which demand would often need to be created. Cancer screening would involve the introduction of an entirely new technology and entirely new equipment. All these issues, therefore, argue against choosing cervical cancer screening as a priority intervention.

8.1.5 Other Cadres

As stated, in the future JHPIEGO should continue to increase the proportion of its work with nonphysicians such as nurses, midwives, and health post workers who are involved in direct service delivery. JHPIEGO has a particular advantage, compared to other CAs, in pre-service training of nonphysician cadres.

8.2 Preparedness over the Next Five to Ten Years

There have been relatively few technological changes in FP, and these changes have occurred slower than in other areas of RH, such as assisted reproductive technology (e.g., in vitro fertilization). JHPIEGO is ideally positioned, given its primary affiliation with JHU and its strong technical clinical leadership, to keep very current with any changes that do occur. JHPIEGO's state of preparedness for new technological developments, areas of interest, and emerging conditions is, therefore, excellent.

8.3 Enhancement of Capacity Building, Institutionalization, and Sustainability

JHPIEGO should strive to build the capacity of countries, regions, and institutions to provide for clinical human resource development independent of outside technical assistance and should add this higher level of achievement to its benchmark hierarchy. JHPIEGO should promote further institutionalization by carefully developing MOUs with each institution and by speeding up the development and use of advanced trainers and master trainers in program countries.

The fifth cooperative agreement should deal explicitly with the fact that JHPIEGO is operating in a resource-scarce environment: USAID is phasing down and out in many countries; program countries are poor and have limited ability to support recurrent costs; and there is no guarantee that costs can be transferred to donors. JHPIEGO should begin immediately to address the current lack of attention to financial sustainability by developing a consensus with USAID on the relative importance of financial sustainability in JHPIEGO programming and by developing a platform on financial sustainability, as well as indicators and benchmarks to measure it.

JHPIEGO should plan, design, and operate with both programmatic and financial sustainability as explicit objectives and incorporate sustainability planning in all its current agreements. Additionally, JHPIEGO should start off all new agreements with programmatic and financial sustainability as an explicit point of discussion. JHPIEGO should avoid, to the greatest extent possible, picking up recurrent costs such as salaries, rent, and utilities; where it is currently doing so, it should immediately develop phase-out plans for such subsidization with the relevant institution and USAID Mission. Both national country strategies and specific JHPIEGO agreements (MOU) with host-country institutions should clearly delineate (1) the in-country costs of JHPIEGO's support to training systems and programs such as salary supplements, travel, per

diem, office expenses, and models such as Zoe; (2) who will assume those costs when JHPIEGO ceases to fund them; and (3) a plan to reduce and transfer those costs.

JHPIEGO should use its creativity and ingenuity to develop technologies, materials, and models that are state of the art in functionality, effectiveness, and affordability, such as anatomical models that could be locally produced inexpensively, and training materials that are more concise and can be printed locally.

JHPIEGO should speed up the development and use of advanced trainers and master trainers to create sustainable training capacity.

JHPIEGO should continue its efforts in pre-service training, including working to change the policies of pre-service training institutions so they become more involved in training and supervising clinical skills, and so that they provide the policy, research, and monitoring needed to sustain quality service delivery in family planning. JHPIEGO should increase its pre-service training interventions in nursing and midwifery schools in countries where these cadres provide most of the FP and RH service to clients. JHPIEGO should also train more nurses and midwives as clinical trainers, advanced trainers, and master trainers.

8.4 Future Directions in Training

A prior survey of leading medical schools in the U.S. and Canada and a survey of the literature on health care training (Bergthold 1997) found that JHPIEGO is at or near the leading edge in many aspects of medical training. JHPIEGO's leading edge activities are as follows:

- **Training Approach**. Only one medical school in the U.S.—Brown University School of Medicine—uses the CBT approach.

- **Training Materials**. JHPIEGO's materials can also be considered state of the art.

- **Use of Models**. Again, JHPIEGO has created and is effectively using anatomical models in a way that is consistent with the best practices of the leading medical schools.

However, JHPIEGO is not current with the best practices of leading training institutions in the following two areas:

(1) **Problem-based Learning**. Several leading medical schools, including the University of New Mexico, Southern Illinois University, and Canada's McMaster University have instituted problem-based learning as a complete or partial curriculum. Problem-based learning presents the student with a series of cases or problems and all

knowledge and skills are learned in a case context. This approach has a great deal of relevance for JHPIEGO's work. JHPIEGO is currently exploring the application of problem-based learning in some of its programs.

(2) **Community-based Preceptorship**. One of the major trends in medical education is training young physicians almost entirely in community settings rather than in traditional classrooms and teaching hospitals. This approach is based on the recognition that most providers practice in community settings outside of tertiary-level hospitals. It also reflects research findings that the transfer of learning occurs most readily to the work setting when training is conducted in a setting that is similar to working conditions. Community-based preceptorship seems particularly relevant to JHPIEGO's mission of making pre-service training relevant to the needs of developing countries, reducing the costs of pre-service training, and increasing the role that pre-service training institutions take in maintaining and improving the quality of health-care service in their countries.

JHPIEGO's training methodology and training materials are current with the best practices of leading U.S. and Canadian medical schools. U.S. medical schools are developing new approaches to problem-based learning and to community-based training of service providers that JHPIEGO is not yet using. Using the community-based training approach may be a way that JHPIEGO could help pre-service training institutions provide better clinical training, become more relevant to the needs of their countries, and develop a stronger role in sustaining quality service in community settings. JHPIEGO should investigate the experience of medical schools, such as the University of New Mexico, Southern Illinois University, and McMaster University, and determine the feasibility of including problem-based learning and community-based preceptorships in its pre-service training strategy.

8.5 Monitoring and Evaluation

JHPIEGO should develop indicators and benchmarks for quality, supporting PHN *Result 1.4*. These indicators and benchmarks should be complemented by a research and evaluation program that will address the following questions:

- Does JHPIEGO's training approach produce results in improved quality of provider service and quality of care for clients?
- What is the evidence that compliance with JHPIEGO's guidelines results in quality of service outcomes?
- What are the minimum standards that must be followed to provide quality care?

Further, JHPIEGO should develop the capability to monitor efficiency by tracking costs at an activity level.

8.6 Management Decentralization

JHPIEGO should more fully decentralize—true delegation of authority—to regional offices, and from regional offices to existing field offices. Current and future field offices should be delegated—in a timely manner to ensure responsiveness with their principal client's needs—the authority to handle programmatic and financial decisions under a specific financial limit. Policy-related decisions should remain with the Baltimore office. In line with the broader mandate as presented above and in response to USAID mission's needs, JHPIEGO should open additional field offices, with delegated authority, where the volume of work and the level of funding permits.

9. USAID

The fourth cooperative agreement coincides with major changes occurring in USAID. Two factors have particularly affected JHPIEGO: a turnover in its contracting officer's technical representative (COTR) and the development of the field support funding mechanism. JHPIEGO has had four COTRs in two and a half years; although each has been knowledgeable and supportive, it has, understandably, taken each new COTR time to become familiar with the project. The shift from primarily core funding to primarily field support funding has been, from JHPIEGO's position, the more difficult adjustment. JHPIEGO has revised its financial management and reporting system to cope with this new situation. Although it is not identified as a problem (for this is a cooperative agreement rather than a contract), the cooperative agreement itself has not been "definitized."

JHPIEGO has some challenging years ahead as it seeks to be a competitive, sustainable corporation in the global arena. To be truly competitive, JHPIEGO will need to document its impact and costs. USAID can be most helpful over the long term by helping JHPIEGO address the following questions:

- Who will be JHPIEGO's clients in ten years?
- What will JHPIEGO offer those clients? What will those clients want?
- What is the impact of JHPIEGO's services on the quality of RH services? How can it demonstrate that impact?
- How can JHPIEGO be competitive in an increasingly cost-conscious environment?

APPENDICES

APPENDIX A

Scope of Work

I. BASIC INFORMATION

Project Name/Number: Training in Reproductive Health III

Cooperative Agreement #: CCP-3069-A-00-3020-00

Central Funding Agreement Value: $80,722,779

Obligation to Date: $51,914,049 (as of September 30, 1996)

II. BACKGROUND

JHPIEGO

The JHPIEGO Corporation (a Johns Hopkins University Program for International Education in Reproductive Health) is a nonprofit organization that aims to improve the health of women and families globally. JHPIEGO works to increase the number of qualified health professionals trained in modern reproductive health care, especially family planning. During the past 20 years, more than 83,000 health professionals from over 5,000 institutions in 128 countries have been trained by JHPIEGO staff.

JHPIEGO promotes training-related activities as a vehicle for achieving improvements in reproductive health worldwide. JHPIEGO's current cooperative agreement is the fourth in a series of projects with USAID's Office of Population to train physicians and other clinical health personnel in reproductive health. The objectives of the fourth cooperative agreement are:

1) **Capacity Building**
To establish the capacity of countries to train their own health care personnel to deliver quality family planning services, emphasizing long term methods, through the development of national training systems;

2) **Direct Training**
To meet short term national family planning needs, especially in long-term methods, through the training of service providers;

3) **Maximizing Access and Quality of Services**
To increase access and quality of reproductive health services by strengthening medical, training and service protocols worldwide. In addition, reduce medical and training barriers which limit access to family planning;

13

4) **Training Technologies, Approaches and Materials Development**
To improve the effectiveness and efficiency of reproductive health training materials; and

5) **Technical Resources Development**
To expand international reproductive health training resources and systems through training future family planning trainers and leaders and through technical assistance to missions and others working in family planning.

USAID

In January 1994, USAID adopted an Agency goal to stabilize world population and protect human health. To meet this goal the agency adopted the following strategic objectives:

1. Sustainable reduction in unintended pregnancies
2. Sustainable reduction in maternal mortality
3. Sustainable reduction in child mortality
4. Sustainable reduction in STI/HIV transmission among key populations

Subsequently, an Agency reorganization created the Bureau for Global Programs, Field Support and Research and brought together the Office of Population and the Office of Health and Nutrition in a new Center for Population, Health and Nutrition (PHNC). Within the broader strategic objectives outlined by the Agency, the PHNC developed four strategic objectives. These are:

SO 1: Increased use by women and men of voluntary practices that contribute to reduced fertility;
SO 2: Increased use of safe pregnancy, women's nutrition, family planning and other key reproductive health interventions;
SO 3: Increased use of key child health and nutrition interventions; and
SO 4: Increased use of improved, effective, and sustainable responses to reduce HIV transmission and to mitigate the impact of the HIV/AIDS pandemic.

The PHN Center's Strategic Objective 1 has four program results. These are intermediate-level results that help to guide programs and activities and allow the Center to monitor progress. The four results for SO1 are:

Result 1.1: New and improved technologies and approaches for family planning programs;
Result 1.2: Improved policy environment and increased global resources for family planning programs;
Result 1.3: Enhanced capacity for public, private, NGO and community-based organizations to design, implement, evaluate and finance sustainable family planning programs; and
Result 1.4: Increased access to, quality of, cost effectiveness of and motivation for use of

family planning, breastfeeding, and selected reproductive health information and services.

The PHN program focus, therefore, is on improving the quality, availability and use of key family planning, reproductive health, and other health interventions in the PHN sector, with sustainability and program integration as essential crosscutting themes. Program sustainability is promoted by building host country capacity to plan and manage programs.

The work carried out by the Communication, Management and Training Division (CMT) of the Office of Population is focused on Strategic Objective 1. The CMT Division works to build national training systems that will enable countries to train and support their own doctors, nurses, midwives, community health aides, traditional birth attendants and others involved in reproductive health care delivery.

There are two training programs in the CMT Division: JHPIEGO and PRIME. PRIME, the Primary Providers' Training and Education in Reproductive Health Project, focuses on front-line health care providers who reach clients with family planning and reproductive health care services at the community level. This includes nurses, midwives, primary care physicians, pharmacists, traditional birth attendants and other community-based health workers. JHPIEGO, on the other hand, focuses on training physicians (both general practitioners and Ob/Gyns), nurses and midwives primarily in a clinic setting. Both JHPIEGO and PRIME work in preservice and inservice training, but JHPIEGO places more emphasis on pre-service training than does PRIME.

While these two projects carry out the bulk of centrally-funded FP/RH training for USAID, other projects in the Office of Population also carry out FP/RH training, e.g. AVSC, SEATS and Pathfinder. However, the latter projects provide training for discrete groups of providers in a particular service delivery setting. They are not focused on the development of sustainable training systems as are JHPIEGO and PRIME.

JHPIEGO addresses all of the PHN Center's intermediate results under SO 1, cited above. Sections of the Statement of Work below are keyed to these results to facilitate the evaluation of JHPIEGO's activities within this framework.

III. PURPOSE OF EVALUATION

There are four purposes to this evaluation:

1. To assess the extent to which JHPIEGO has accomplished the training purposes and objectives as set forth in the Cooperative Agreement.

2. To assess the effectiveness and efficiency of JHPIEGO's organizational and management structure.

3. To assess the sustainability of JHPIEGO's efforts in building national training systems to train health care personnel.

4. To identify specific areas of reproductive health training that JHPIEGO should emphasize under its next cooperative agreement with USAID.

IV. STATEMENT OF WORK

While giving special attention to the questions below, the evaluation team should analyze the extent to which JHPIEGO has accomplished the purpose and objectives of its cooperative agreement and the extent to which JHPIEGO has contributed to the strategic framework (SOs and IRs) cited above. Priority questions are indicated with an asterisk (*).

A. Sustainability, Capacity Building & Institutionalization (Results 1.2 and 1.3)

*1. How effective has JHPIEGO been in increasing the training capability and capacity of developing country training institutions? How many institutions and agencies have been able to maintain training programs without further technical assistance from JHPIEGO? What systems have been established in these institutions, and how has JHPIEGO contributed to this process?

- What are JHPIEGO's definitions of sustainability, capacity building and institutionalization, and how are they measured? How are capacity building and institutionalization integrated into the design, monitoring and evaluation of projects?

- Has JHPIEGO developed a model for building national capacity for reproductive health training? Please analyze the strengths and weaknesses of these approach(s) and model.

- How does JHPIEGO work with its grantees to develop a clear understanding of its expectations for program continuation once JHPIEGO support ends? Do grantees understand what are the expected outputs of the support they receive from JHPIEGO?

- Has JHPIEGO arrived at an appropriate mix of preservice and inservice activities? What problems has it encountered in establishing this mix?

- How successful has JHPIEGO been in developing a south-to-south network of capable, proficient and reliable training consultants that can be used nationally, regionally, and internationally?

- How well has JHPIEGO collaborated with other CAs to ensure that capacity building and institutionalization take root?

2. What impact has JHPIEGO had on developing national family planning and reproductive health guidelines, policy and regulatory practices? What linkages has JHPIEGO made with different institutions in this process?

   - How are these service guidelines, policies and regulations disseminated? What impact have these guidelines had on national policies and programs? To what extent have they been integrated into family planning curricula and training courses?

*3. What evidence is there that participants in JHPIEGO training programs are gaining skills and knowledge?

   - How is JHPIEGO tracking and documenting the impact of its training on service delivery access and quality? Is this documentation sufficient and appropriate?

   - Is JHPIEGO providing sufficient follow-on support to its trainees and educational projects? Is there a system for updating the contraceptive knowledge of trainers and clinical preceptors?

4. How does JHPIEGO ensure that its training activities are appropriately timed with other components of service delivery strategies, e.g., IEC campaigns, delivery of supplies and equipment?

B. Maximizing Access and Quality of Services (Result 1.4)

*1. How does JHPIEGO define quality of care? What has been JHPIEGO's impact on the quality of FP services?

*2. How appropriate are JHPIEGO's emphases in quality of care? Are there any gaps in its approach?

3. To what extent do JHPIEGO's training curricula and contraceptive technology updates (CTUs) include the full range of family planning methods? Please cite specific country examples.

4. What has been JHPIEGO's impact on maximizing access to family planning services? How does it address the needs of underserved groups, i.e., men, adolescents, post-abortion and postpartum women?

C. Materials and Technical Resources Development (Result 1.1)

*1. Please comment on the quality, utility and comprehensiveness of materials designed by JHPIEGO. Given the crossover and utilization of training materials by CAs, how

11

does JHPIEGO ensure that it does not duplicate the work of others? To what extent have other CAs found JHPIEGO's materials useful and relevant?

*2. What have been the outputs from USAID's investment in JHPIEGO's application of information technology to reproductive health training?

- What is the relative impact on learning of these new technologies as compared to JHPIEGO's current participatory classroom approach to knowledge transfer? What is their contribution to JHPIEGO's competency-based training approach? What should be the relative emphasis placed on these new technologies versus other training methodologies?

- How effective are ModCAL, ReproLine and ReproLearn applications in field settings in JHPIEGO's target countries? Which JHPIEGO-assisted countries should be candidates for the application of these technologies?

- What is the quality of JHPIEGO's product? How does it compare to other state-of-the-art computer-based and distance-based learning packages? Is JHPIEGO making the most, or too much, of the various technologies available?

- How cost-effective is JHPIEGO's use of these technologies? Does this technology improve the cost-effectiveness of competency-based training?

- To what extent will sustainability of information technology interventions be an issue which undermines cost-effectiveness?

- Are there other information technology approaches that should be considered, e.g., Internet, to reach a broader audience? Are there any technologies that JHPIEGO should not pursue?

*3. What has been the impact of JHPIEGO's efforts to develop local capacity for the adaptation and development of training materials and new learning technologies?

D. Monitoring and Evaluation

*1. To what extent can JHPIEGO demonstrate its contribution to USAID's results framework?

*2. How does JHPIEGO help country institutions develop local capacity in monitoring and evaluation of training? Is this a routine part of JHPIEGO's technical assistance?

3. What role does research and evaluation play in setting priorities and articulating strategies for JHPIEGO's program and its various components? How have the results

of JHPIEGO's internal evaluations been used to improve training activities, training plans and strategies?

E. Organizational and Management Structure

*1. Does JHPIEGO's organizational structure and staffing, numbers and types, correspond to its mandate? Are there duplications or gaps in this structure? For example:

- How do the Information Technology Office and the Training Office interface? Do they overlap in any way?

- How do JHPIEGO's Regional Offices in Baltimore and its Training Office interface?

- How do JHPIEGO's field offices relate to headquarters? To what degree have these offices been delegated authority to make program and financial decisions?

*2. What effect has the creation of the position of Executive Director had on the organizational structure and decision-making roles and responsibilities? Are the distinctions between the President, Executive Director, and Vice-President for Programming clear and appropriate?

3. What financial management changes have taken place under the new financial director? How have these changes enabled JHPIEGO to analyze its costs (both structural and programmatic)?

4. To what extent has JHPIEGO been able to diversify its funding other donors besides USAID? How has JHPIEGO changed organizationally to respond to this diversification and still maintain its focus on the activities of this cooperative agreement?

F. Future Directions

*1. What should be the priorities for JHPIEGO's training program under a future cooperative agreement? To what extent are the five objectives of the current cooperative agreement still relevant? Please consider questions such as the following:

- Is preservice training a continuing need? To what degree?
- What level of effort is still needed for the development of FP/RH guidelines and standards?
- What are the advantages and disadvantages of JHPIEGO's integrating training in other reproductive health interventions with family planning training, e.g.

the UVI technique for detection of cervical cancer?

- Should other areas of human resource development and management as they relate to training be added to JHPIEGO's mandate?
- What would be the advantages and disadvantages of broadening JHPIEGO's mandate to encompass other cadres of frontline health and family planning providers currently targeted by the PRIME project?

*2. What is the state of preparedness of JHPIEGO to meet the reproductive health training challenges over the next 5-10 years: new methods, new areas of interest, emerging conditions?

*3. What should JHPIEGO do differently in the future to enhance sustainability, capacity building and institutionalization?

*4. What should JHPIEGO do differently in the future to improve monitoring and evaluation?

*5. What management changes are recommended for the future? What are the advantages and disadvantages of JHPIEGO'S expanding its field presence and reducing the number of staff in Baltimore? To what degree should JHPIEGO be further decentralized?

6. What are the linkages and overlaps between JHPIEGO and other CAs (PRIME, AVSC, Pathfinder and SEATS)? Where are the gaps in provider training that none of these projects is addressing? Please provide examples in specific countries.

G. USAID

1. How well has USAID managed the project? Please comment on the relationship with: 1. the CTO - technical assistance/administrative assistance; 2. Office of Population staff and leadership; 3. PHN Center; and 4. Office of Procurement.

2. Has USAID been appropriately responsive, technically and contractually?

V. MATERIALS AND PROCEDURES

A. Data Sources

The evaluation team will review all project documentation including but not limited to the following: JHPIEGO's Cooperative Agreement (CA), workplans, trip reports, project papers, financial reports, JHPIEGO's internal evaluations and previous external evaluations.

B. Methods of Data Collection

Interviews

The evaluation team will interview JHPIEGO's staff, consultants and organizations working with JHPIEGO including USAID/Washington personnel, Mission personnel and CAs, NGOs and PVOS with whom JHPIEGO has collaborated. Additionally, interviews will be conducted with CAs and NGOs/PVOs who have not been partners with JHPIEGO in order to obtain their perspective on the applicability of JHPIEGO's approach.

Within USAID/Washington, the evaluation team will meet with G/PHN/POP staff including the Front Office, CMT Division, Research Division, Family Planning Services Division, Policy & Evaluation Division and Contraceptives Logistics Management Division. In addition, the team should meet with staff in the Office of Health and Nutrition who manage related services projects, e.g., MotherCare, and with staff in the Office of Field & Program Support and country coordinators who manage key countries where JHPIEGO is working.

The CMT Division will send a cable or e-mail to the appropriate field Missions for input into this evaluation. The Missions should be asked to provide information about training activities undertaken by JHPIEGO and about the future role of JHPIEGO in specific countries. Based upon review of Mission responses, the team may wish to follow-up on these responses with interviews (telephone or e-mail) of Mission staff in various countries.

Field Visits

After reviewing documents, the evaluation team will visit Nepal, Indonesia, and Kenya. In addition, the team will review documentation on key countries not visited. This review should provide information and lessons learned on the impact of JHPIEGO's training effort including contribution to institutionalization of the country's training capabilities. In addition, it will be crucial to look at how capacity building and institutionalization will lead to sustainable programs once USAID assistance has ended in these countries.

C. Duration and Timing

The evaluation will begin in mid-April 1997. Seven weeks will be required for data collection and drafting the report. Once the team leader receives comments on the first draft, s(he) will require additional time to incorporate them into the report. The full timeline will be based on the following outline:

Week 1: Washington/Baltimore
Weeks 2-4: Field Visits
Weeks 5-6: Washington, DC; draft report and debrief AID/Washington and JHPIEGO, Baltimore

Week 8: First draft received at POPTECH and copies distributed to team members, USAID CTO, CA, and assignment manager for comments.
Week 10: Comments received by POPTECH and sent to team leader.
Week 12: Team leader turns in 2nd draft with comments incorporated.
Week 13/14: POPTECH editing staff edits/formats report and sends clearance draft to USAID CTO for approval.
Week 15: USAID gives final clearance/approval of report (minor changes may be noted).
Week 16/17: POPTECH makes any final changes, and POPTECH Director/Deputy reads final copy. Report sent to printer and distributed.

E. Team Composition

The evaluation team will consist of four members:

1. One expert in training -- not necessarily in RH/FP.
2. One family planning/reproductive health clinician with experience and expertise in international and development training, program design, implementation and evaluation.
3. One expert in sustainability, capacity building and institutionalization of international public health programs.
4. One expert in information technology and its application to the development of new education and training models.

VI. FUNDING AND LOGISTICAL SUPPORT

All funding and logistical support for the JHPIEGO evaluation will be provided through the Population Technical Assistance Project (POPTECH). Activities that will be covered include recruitment of the evaluation team, payment of evaluation team members for six day work weeks, support for all expenses related to the evaluation, logistical support and publication of the draft and final report.

APPENDIX B

Bibliography

Ajello, C., B. Bertrand, N. McIntosh and E. Oliveras. "Learning Without Walls: A Pre-Congress Seminar." Reprosystem. 1995.

"Assessment of Service Provider Skills and Training Using LQAS: Kenya." (Draft) March 1995.

AVSC International. *Client Oriented Provider Efficient Services (COPE)*. 1995.

Bertrand, J., R. Magnani and J. Knowles. *Handbook for Indicators for Family Planning Program Evaluation*. The Evaluation Project. n.d.

Bhatia, S., D. Dean and N. McIntosh. "The Evaluation of Kenya Minilaparotomy Program (Phase II): Medical Officer/Nurse Team Training." Johns Hopkins Program for International Education in Reproductive Health (JHPIEGO). June 1990.

Brechin, S. et al. "Implementing a New Training Approach: Pilot Test of ModCal in Zimbabwe." 1997.

Cobb, L. et al. *Final Assessment of the Egypt Child Survival Project.* POPTECH. August 1996.

Johns Hopkins Program for International Education in Reproductive Health (JHPIEGO). "Annual Report." 1994.

JHPIEGO. "Annual Report." 1995.

JHPIEGO. "Annual Report." 1996.

JHPIEGO. "Annual Report." 1997.

JHPIEGO. "Annual Workplan: PY1." (Draft) January 1994.

JHPIEGO. "Annual Workplan: PY2." Submitted to USAID, October 1994.

JHPIEGO. "Annual Workplan: PY3." March 1996.

JHPIEGO. "Annual Workplan: PY4." August 1996.

JHPIEGO. *Clinical Training Skills for Reproductive Health Professionals*: Reference Manual, Participant's Handbook, Trainer's Notebook. 1995.

JHPIEGO. "Cooperative Agreement, August 27, 1993." n.d.

JHPIEGO. *Infection Prevention for Family Planning Service Programs*: Reference Manual, Participant's Handbook, Trainer's Notebook, Training Videotape. 1992.

JHPIEGO. *Infection Prevention for Family Planning Service Programs*: Overview and 12 Training Demonstration Segments. 1994.

JHPIEGO. Intern ML/LA evaluation Phases 1-3." n.d.

JHPIEGO. Issues in Cervical Cancer: Seeking Alternatives to Cytology." 1994.

JHPIEGO. Issues in Management of STDs in Family Planning Settings." 1996.

JHPIEGO. Issues in Training for Essential Maternal Health Care." 1997.

JHPIEGO. Nepal Family Planning Training Strategy: An Update." August 1996.

JHPIEGO. *Norplant® Implants Guidelines for Family Planning Service Programs*, 2nd edition: Reference Manual, Participant's Handbook, Trainer's Notebook. 1995.

JHPIEGO. *On-the-Job Training for Family Planning Service Providers.* 1996.

JHPIEGO. *Pilot-Test of Puskesmas-Based Training for Indonesian Midwives* (SEA-2026). n.d.

JHPIEGO. *PocketGuide for Family Planning Service Providers*, 2nd edition. 1996.

JHPIEGO. *Service Delivery Guidelines for Family Planning Programs.* 1996.

JHPIEGO. "Proposal for Renewal of Cooperative Agreement." December 1992.

JHPIEGO. "Reproductive Health Training Fact Sheets." March 1997.

JHPIEGO and USAID. "Management Review." March 1996.

"The Kenya Country Position Paper on Population and Development." Presented to the International Conference on Population and Development: Cairo, Egypt. September 1994.

Lacoste, M. et al. "Evaluation of the Medical Intern Minilaparotomy Training Program of Kenya (Phase 3)." JHPIEGO. 1995.

Limpaphayom K., C. Ajello, D. Reinprayoon, P. Lumbiganon and L. Gaffikin. "The Effectiveness of Model-based Training in Accelerating IUD Skill Acquisition," *British Journal of Family Planning* 23:2, 1997.

McIntosh, N. "Why Do We Lecture?" JHPIEGO. February 1996.

McIntosh, N. and L. Tietjen. "Infection Prevention: A History of Change." JHPIEGO. June 1996.

McIntosh, N. and E. Oliveras. "Globalizing Access to Reproductive Health Information." Virtual Seminar Review Series. JHPIEGO. 1997.

McIntosh, N. and E. Oliveras. "Impact of Information Technology on Higher Education." Virtual Seminar Review Series. JHPIEGO. 1996.

McIntosh, N. "Nepal Reproductive Health Training Sector Assessment and Five Year Action Plan (1993-1998)." 1993.

Mensch, B. et al. "Family Planning in Nairobi: A Situation Analysis Of the City Commision Clinics," *International Family Planning Perspectives*. n.d.

Ministry of Health, Government of Kenya: Division of Family Health. "Family Planning Policy Guidelines and Standards for Service Providers." January 1997.

"Nepal Reproductive Health Training Sector Assessment and Five-Year Action Plan (1993-1998)." August 1993.

Pillsbury, B., A. Margolis, J. Rooks, and G. Leinen. *Evaluation of the Johns Hopkins Program for the International Education in Reproductive Health*. Population Technical Assistance Project (POPTECH). 1990.

The Population Council. "Quality of Care in Family Planning Service Delivery in Kenya: Clients' and Providers' Perspectives." Africa Operations Research and Technical Assistance Project II. November 1995.

Postabortion Care Consortium. *Postabortion Care Services: Use of Manual Vacuum Aspiration and Recommended Practices for Processing MVA Instruments*. 1996.

Rogo, K., A. Leonard and E. Muia. "Unsafe Abortion in Kenya: Findings from Eight Studies." The Population Council. 1996.

Sullivan, R. "The Competency-Based Approach to Training." JHPIEGO. September 1995.

Valadez, J., R. Transgrud, T. Smith, H. Sanghvi and M. Mbugua. "Assessing the Post-Training Family Planning Service Delivery Skills of Clinical Providers in Kenya." April 1997.

Winkler, J., E. Oliveras and N. McIntosh. *Postabortion Care: A Reference Manual for Improving Quality of Care*: Reference Manual, Participant's Handbook, Trainer's Notebook. Postabortion Care Consortium. 1995.

APPENDIX C

List of Contacts

USAID/G/HPN/POP

Elizabeth Maguire	Director
Margaret Neuse	Deputy Director
Scott Radloff	Deputy Director
Jim Shelton	Director's Office
Roy Jacobstein	Chief CMT Division,
Maria Busquets	Deputy Division Chief, CMT Division
Estelle Quain	CMT Division
Sandra Buffington	CMT Division
Monica Kerrigan	CMT Division
John Rose	FPSD Division

USAID/G/HPN

Jim Heiby	Quality Assurance Project
Willa Pressman	ENI Regional Coordinator
Pam Wolfe	AFR Regional Coordinator
Lucy Lopez	USAID/Peru

USAID Regional Offices

Lois Bradshaw	REDSO/WA
Ray Kirkland	Chief Population & Health, REDSO East and Southern Africa

Cooperating Agencies

James Lea	Director, INTRAH, Project Director PRIME
Amy Pollack	President, AVSC

JHPIEGO

Noel McIntosh	President
Bob Johnson	Exective Director
Mark Heffernan	Director, Corporate Services Office
Clayton Ajello	Vice President, Programming and Director of Information Technology
Rick Sullivan	Director, Training Office
Sue Brechin	Director, Research and Evaluation Office

87

Kath Jesencky	Director, West Africa Office
Ilka Rondinell	Senior Clinical Training Advisor, Training Office
Joe Deering	Director, Central Asia/Europe/Near East Office
Anne Atkinson	Associate Director, Central Asia/Europe/Near East Office
Anita Ghosh	Program Development Officer, West Africa Office
Pavitra Jung Rayamajhi	Inservice Training Advisor, Nepal Office
Susi Wyss	Regional Program Administrator, West Africa Office
Terri Dean	Senior Program Development Officer, Southeast Asia Office
John Magarick	Director, South Asia Office
John McGrath	Computer Systems Manager, Research and Evaluation Office
Theresa Norton	User Support Information Specialist, Internet Services
Elizabeth Oliveras	Training Resources Coordinator, Training Office
Louis Biggie	Senior Information Advisor, Information Technology Office
Lois Schaefer	Clinical Training Advisor, Training Office
Willy Shasha	Clinical Training Advisor
Rick Lu	Clinical Training Advisor, Training Office
Russel Vogel	Director, Southeast Asia Office, JHPIEGO
Harshadkuma Sanghvi	East/South Africa Advisor, JHPIEGO
Tamara Smith	Country Representative Kenya, JHPIEGO
Rick Hughes	AD South Asia/ Country Representative Nepal, JHPIEGO
Mary Ann Acharya	Program Assistant in Nepal, JHPIEGO
Jeffrey Smith	to be Reproductive Health Advisor Nepal, JHPIEGO

Kenya

USAID

Dana Vogel	Chief, Office of Population and Health
Gary Leinen	Deputy Chief, Office of Population & Health
Millie Howard	Senior Health Program Advisor, USAID
Jerusha Karuthiru	Project Specialist, Office of Population and Health
Ray Kirkland	Chief, Population & Health, REDSO East and Southern Africa
Melinda Wilson	Regional Child Survival Advisor, REDSO East and Southern Africa

Collaborators in Kenya

Maggie Diebel	CAFS Project Manager
Dr. Hagembe	Director, Department of Family Health, Ministry of Health
Dr. Achola	Family Planning Program Manager, Department of Family Health, Ministry of Health

Mrs. Cege	Head Training Unit, Department of Family Health, Ministry of Health
Kibanga Githiru	Medical Superintendent, Provincial Government Hospital, Nyeri
Rose Gichuki	District Training Center Coordinator, Provincial Government Hospital, Nyeri
Dr. Karanja	Chairman, Department of Obstetrics and Gynecology, University Of Nairobi
Yvonne Mvra	Administrator, Department of Obstetrics and Gynecology, University Of Nairobi
B. O. Ojwang	Assistant Professor, Department of Obstetrics and Gynecology, University of Nairobi
J. Macholei	Lecturer, Department of Obstetrics and Gynecology, University of Nairobi
E. Bukusi	Lecturer, Department of Obstetrics and Gynecology, University of Nairobi
P. Ndair	Lecturer, Department of Obstetrics and Gynecology, University of Nairobi
Sheila McCrae	Country Director, UNFPA
Peris Muriuki	Reproductive Health Consultant, UNFPA
Violet Khakyoma	JPO, UNFPA
Margaret Gachara	Reproductive Health Consultant, UNFPA
Margaret Muiva	Lecturer, Department of Nursing Sciences, University of Nairobi & Kenya Medical Training College
Pamela Lynam	Senior Advisor for Medical & Client centered Quality of Care, AVSC
Joseph Dwyer	Director, Africa Regional Office, AVSC
Pate Syr Diagne	Director, CAFS

Nepal

USAID

Molly Gingerich	Chief, Office of Health and Family Planning
Pancha Kumari Manandhar	Senior Population Specialist

Collaborators in Nepal

Laxmi Raj Pathak	Director, Family Health Division, Ministry of Health
Durga Raj Shrestha	Quality of Care Center Family Health Division, Ministry of Health
Vijaya K. C.	Director, National Health Training Center, Ministry of Health
S. Padhye	Director, Maternity Hospital
Indira Upadhyaya	Staff, Maternity Hospital

Padma Shakya	Staff, Maternity Hospital
Indira Singh	Director, Nursing Education, IOM Nursing Department
Geeta Pandey	Campus Chief, Maharajgungi Nursing Campus
Dana Nani Lohani	Faculty, Maharajgungi Nursing Campus
Ganga Chitrakar	Faculty, Maharajgungi Nursing Campus
Jeevan Bhattarai	Director, Chhetrapathi Family Welfare Center
Mahendra Shrestha	Former Acting Director, Chhetrapathi Family Welfare Center
S. K. Khanal	Clinical Trainer, Chhetrapathi Family Welfare Center
Beenu Thapa	Clinical Trainer, Chhetrapathi Family Welfare Center
Bishnu Shrestha	Clinical Trainer, Chhetrapathi Family Welfare Center
Sabitri Joshee	Clinical Trainer, Chhetrapathi Family Welfare Center
Govinda Gajurel	Project Manager, Council for Technical Education and Vocational Training
Kiran Dawadi	Auxiliary Nurse, Midwives Assessment Team
Janaki Kayastha	Auxiliary Nurse, Midwives Assessment Team
Urmila Adikhary	Auxiliary Nurse, Midwives Assessment Team
Digbijaya Rana	Family Planning, Coordinator National Training Center Kathmandu
Swaraj Rajbhandari	Registrar, Maternity Hospital, Katmandu

Indonesia

USAID

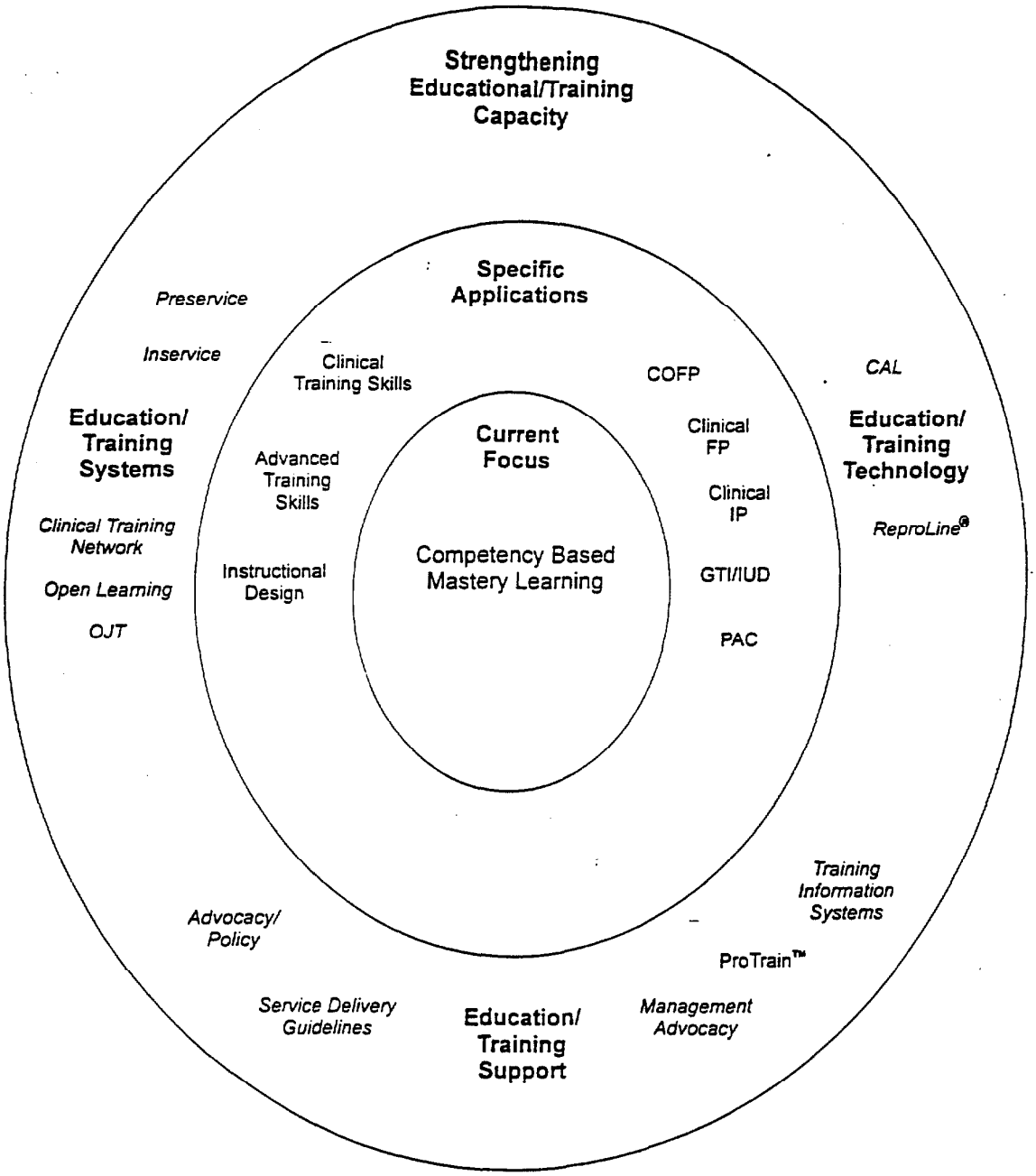
Leslie Curtin	Chief, Office of Health and Family Planning
Lana Dakan	Technical Advisor
Durjati Boedihardjo	Maternal and Child Health, Nutrition Program Manager

Collaborators in Indonesia

Dr. Bimo	Project Director, Yayasan Indonesia Sejahtera
Biran Affand	President, Indonesian Society of Obstetrics and Gynecology
Dr. Djajadilaga	Director, National Resource Center
Slamet Tjiptorahadjo	State Ministry for Population/National Family Planning Coordinating Board (BKKBN)
Rachmi Untoro	Ministry of Health
Mustika Sofyan	Deputy Secretary General, Indonesian Midwifes Association
Mrs. Soetimah	Chief III, Indonesian Midwives Association
Mrs. Wastidar	Secretary General, Indonesian Midwives Association
Mrs. Yaneannas	Chief II, Indonesian Midwives Association
Mural Fasrie	Executive Director, Indonesian Midwives Association
Izhar Fihir	Country Representative, AVSC

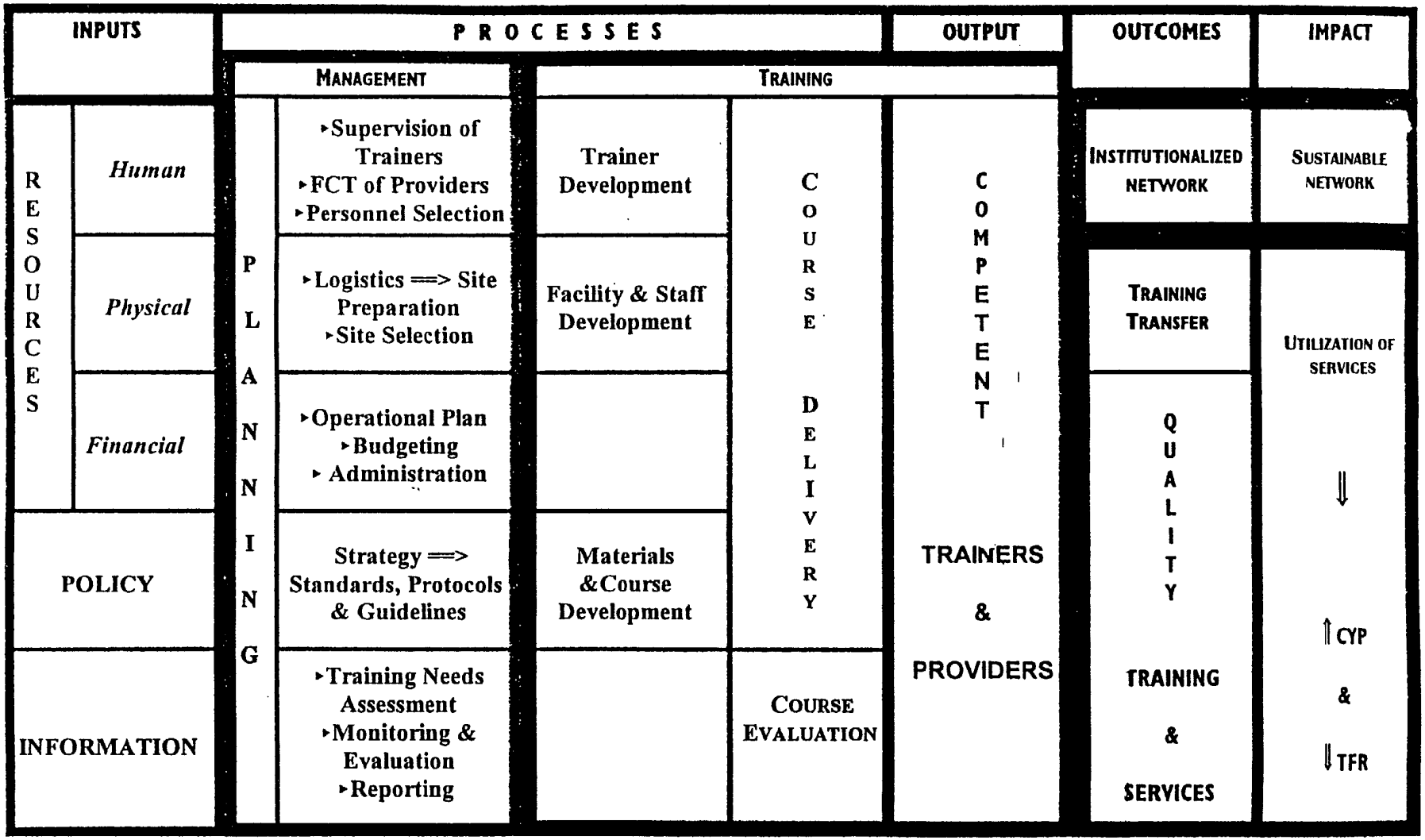
APPENDIX D

JHPIEGO's Revised Competitive Strategy

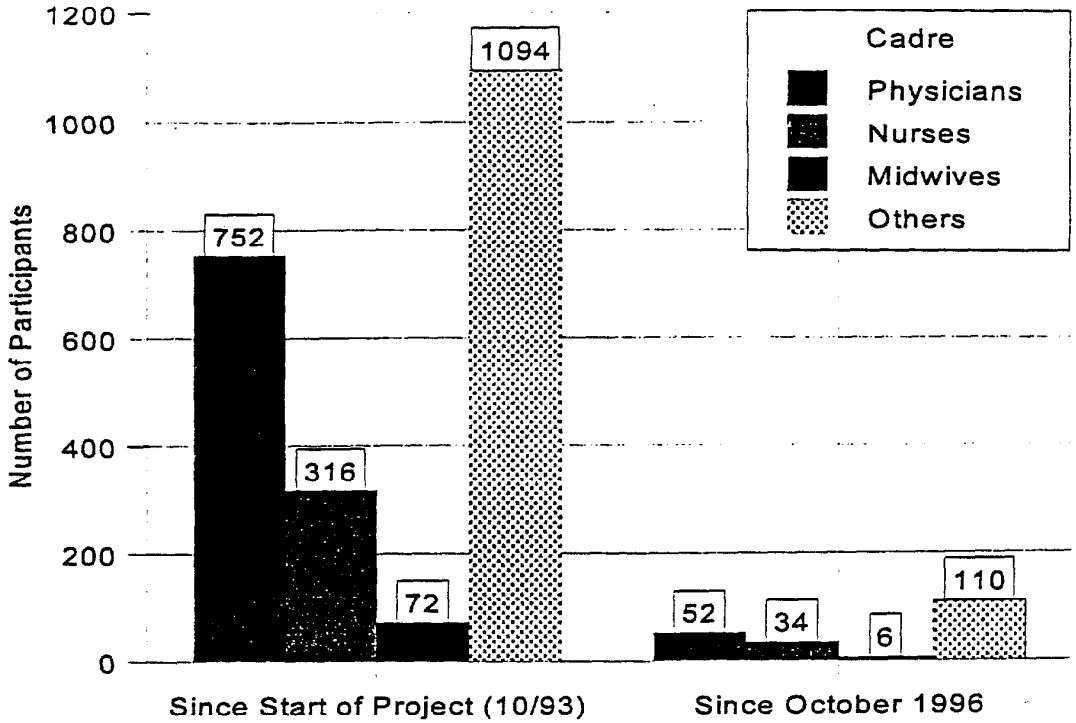


22 January 1997
Mgmt Retreat
Exec Offcrs/NMC

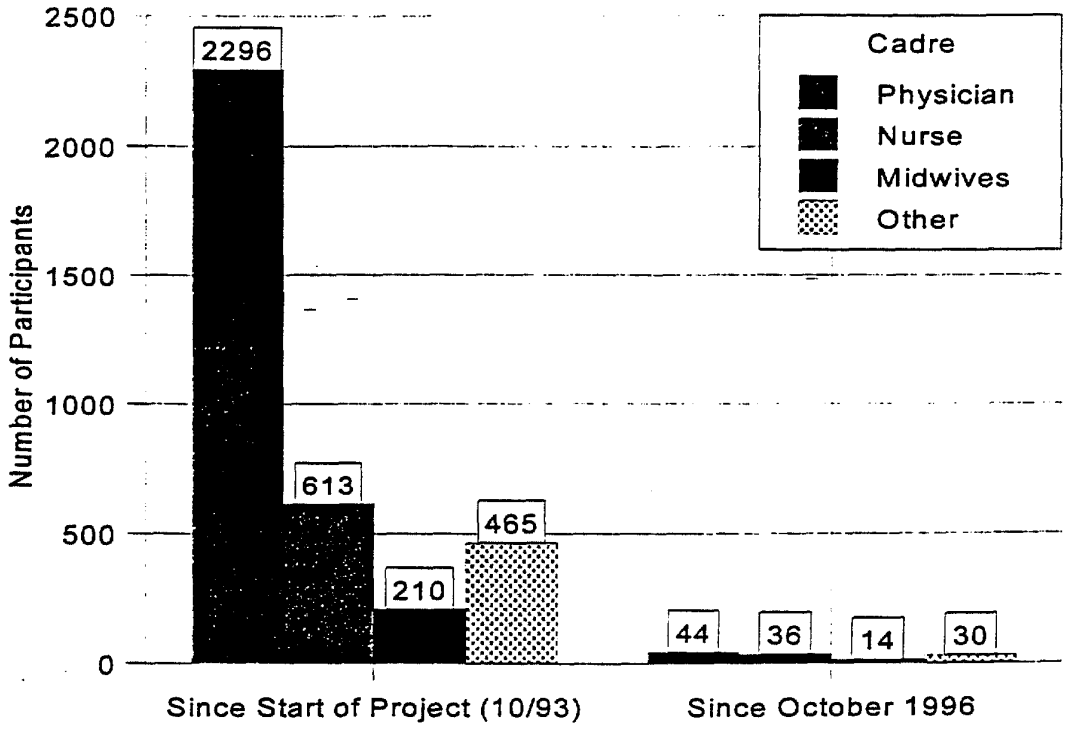
91


INPUTS
PROCESSES
OUTPUT
OUTCOMES
IMPACT
MANAGEMENT
TRAINING
RESOURCES
Human
Physical
Financial
POLICY
INFORMATION
PLANNING
▸Supervision of Trainers
▸FCT of Providers
▸Personnel Selection
▸Logistics ==> Site Preparation
▸Site Selection
▸Operational Plan
▸Budgeting
▸ Administration
Strategy ==> Standards, Protocols & Guidelines
▸Training Needs Assessment
▸Monitoring & Evaluation
▸Reporting
Trainer Development
Facility & Staff Development
Materials &Course Development
COURSE DELIVERY
COURSE EVALUATION
COMPETENT
TRAINERS
&
PROVIDERS
INSTITUTIONALIZED NETWORK
TRAINING TRANSFER
QUALITY
TRAINING
&
SERVICES
SUSTAINABLE NETWORK
UTILIZATION OF SERVICES
⇓
⇑CYP
&
⇓TFR

Numbers of Clinical Trainer participants in JHPIEGO training events over the life of the project and in the past 6 months, by cadre



Numbers of Service Provider participants in JHPIEGO training events over the life of the project and in the past 6 months, by cadre



94

Numbers of participants prepared in JHPIEGO training events over the life of the project and in the past 6 months*		
Participant type:	**LOP: since 1 Oct 1993**	**Last 6 months: since 1 Oct 1996**
Service Providers	90 training events preparing 3584 participants	17 training events preparing 124 participants
Clinical trainers	136 training events preparing 2234 participants	20 training events preparing 202 participants
Other	26 training events preparing 369 participants	5 training events preparing 18 participants
	Candidate	**Qualified**
Advanced Trainers**	56	22
Master Trainers**	10	4

* During previous portfolio review (for period 1 Jan 1996 - 30 Jun 1996) this table reported **projected** numbers rather than actual numbers, since program staff were still in the process of reformulating their project results in terms of the newly introduced JHPIEGO benchmark system, and not all projects had been updated. For the current and future portfolio reviews, actual numbers will be reported.

** Advanced and master trainer development is now monitored in a database maintained by the Training Office. These types of trainers undertake a variety of training experiences before being qualified. This review and future ones will report numbers of candidate and qualified advanced and master trainers (as recorded in the Training Office database), rather than report numbers of events.

APPENDIX E

HRM Matrix

Policies/Practices Influencing Human Resource Management for Physicians in Egypt

Stage	Policy/Practice
Pre-employment	
career selection	Admission to all career tracks (undergraduate schools and universities) dependent upon achieving specified nationally-determined grades.
professional education (medical school)	Eleven of Egypt's universities have faculties of medicine. All are GOE-supported, public institutions; there are no private medical schools at this time. New physicians are graduated twice yearly, in March and in September. Egypt recognizes that it is producing more physicians than the country can absorb and has begun reducing the size of its medical school classes.
career tracking	Upon completing the seven years of medical school, all newly graduated physicians have the option of entering the MOH under the "graduates policy" which guarantees them an MOH position if they wish one.
Employment	
assignment	Newly graduated physicians wanting a position within the MOH must first complete a period of mandatory service within its ranks. The period of mandatory service is at least one year but no more than six months must be served in the "far districts" like the frontier and rural areas of some governorates. In addition, all Egyptian men who are not only children or only sons must also serve in the military which frequently interrupts MOH service. Assignment is supply-driven rather than demand/need-driven. Central level MOH assigns newly-graduated MDs to specific governorates, districts, and even facilities within those districts, depending upon the physician's grades in medical school, martial status, gender, and personal background. Female physicians receive preferential assignment close to their homes. In Aswan, due to the murder of a female MD in a rural health unit several years ago, the Aswan governorate has a policy of not assigning a female physician to a rural health unit.
pre-service training (post professional education)	It is, following assignment to a specific district, an obligatory two month period of training including both managerial and technical topics.
orientation	MOH capacity to orient young physicians, to a specific position in a specific health facility, is affected by the sheer numbers of such new graduates entering MOH service every six months.
supervision	MOH capacity to adequately supervise is affected by sheer numbers of employees and their distribution throughout the country.
training	MOH capacity to ensure that all positions are filled by staff trained to fulfill tasks required by that position is limited by the high turnover of newly assigned physicians, particularly in rural health units and in Upper Egypt.
compensation	Basic salaries for specified positions are determined centrally - additionally, personnel are allowed to earn salary supplements and bonuses up to 300% of their basic salary.
leave taking	Physicians are allowed to take up to a 10 year leave of absence and retain the right to return to the post held previously.
promotion	Advancement is within civil service policies/procedures
retirement	Mandatory retirement (with special exceptions made) at 60 years.
termination	Termination (in the sense of firing) is exceptionally rare. A position is usually found for everyone.

Source: Cobb, L., et. al. *Final Assessment of the Egypt Child Survival Project*: Appendix K. POPTECH. August 1996.

APPENDIX F

2. Using the Internet to Improve Reproductive Health Training[1]

Noel McIntosh
Elizabeth Oliveras

Background

Although the reproductive health status of families in most developing countries is improving, governments continue to search for new ways to achieve further reductions in maternal and infant mortality. A persistent ***problem*** is the lack of providers qualified to meet the increased demand for reproductive health services. This often is due to the limited ability of education and training systems to generate and maintain sufficient numbers of qualified service providers and trainers. An additional problem is that as the need to train large numbers of providers has increased, inservice training costs have skyrocketed. As a consequence, in many countries there is a ***need*** to strengthen the capability of preservice institutions (medical, nursing and midwifery schools) to provide clinical training.

Until recently, inservice training has been the *modus operandi* for training service providers in most developing countries. Increasingly, international donors and government officials realize that inservice training is not the most efficient or cost-effective way of providing **basic** education and training in reproductive health topics such as family planning. For example, with inservice training, providers generally must leave their service delivery sites for the duration of the course. This leads to travel and per diem costs as well as disruption of services, especially if the participant is the only service provider at a small clinic. Providing training during preservice education, on the other hand, means that:

- providers already have the needed skills when they begin to practice,
- they do not need to be taken away from their work once they are practicing, and
- because students are already assembled, travel and per diem costs are not incurred by the health system.

Preservice training is a more efficient and cost-effective way to train large numbers of qualified providers. Inservice training, on the other hand, will increasingly be used as the means of updating the knowledge and skills of faculty and providers who are already trained. As a consequence, many governments now are beginning to direct their resources to developing integrated (preservice and inservice) training systems in order to meet current and future needs for qualified providers. To do this successfully, the focus of preservice education must shift from a primary emphasis on knowledge to a more balanced system of knowledge and skills transfer. Key actions needed to improve the quality of preservice education and training are to:

- make it **competency-based,**
- make extensive **use of simulations** and **anatomic models** (humanistic technique) for initially learning and practicing new skills, and
- make **information transfer** and **access to information** more cost-effective.

Making Information Accessible

As the focus of preservice education has begun to shift, valuable insight has been gained as to how educational systems in many countries must be reconfigured to address existing constraints. For example:

- At present, information transfer at all levels of the higher education system often is ineffective and costly.

[1] Portions of this paper were presented at the Learning Without Walls seminar on 13–14 October 1995 in Bali, Indonesia and at the annual meeting of the American Public Health Association on 20 November 1996 in New York.

- To support the shift to competency-based training (CBT) requires that policymakers, faculty and trainers have easily accessible and up-to-date information in order to:

  - revise national service delivery policies and guidelines,
  - learn about new research findings in educational methods and training technologies, and
  - develop training materials that are standardized and consistent with international reproductive health guidelines.

- Current training methodologies, whether or not they are competency-based, often are too expensive to maintain, especially in countries with large populations. This is primarily due to the high cost of keeping faculty and trainers up-to-date—**a knowledge transfer** problem.

The lack of up-to-date information, as well as an inexpensive way to obtain new information, is a major problem currently facing many countries as they work to improve the quality of training. For example, books, journals and other publications are expensive and need to be replaced regularly. Consequently, for the past 2 years JHPIEGO staff have actively pursued new educational and training approaches designed to take advantage of advances in information technology. To quote John S. Mayo (1994), President of AT&T Bell Laboratories, only one thing is certain:

> *"... this is a revolution—an information [and education] revolution—that will change the way we live, work, play, travel and communicate. In short, it will make today's way of life as obsolete as the Model T [car]."*

The potential impact of making current reproductive health information available globally through the Internet is enormous. Not only will it have an impact on the quality of information transfer and reproductive health training, but also it will, for the first time ever, afford faculty, students and health professionals from any country **equal** and **regular** access to new information—a priceless gift we in the developed world have had for decades.

The Indonesian Experience: A Case Study

On 13–14 October 1995, a precongress seminar entitled **Learning Without Walls** was held in Bali, Indonesia in conjunction with the XVth Asian and Oceanic Congress of Obstetrics and Gynecology. It provided an opportunity for a group of 25 key Indonesian decision-makers to update their knowledge of the "information revolution" and to explore its possible impact on reproductive health education and training. The seminar drew upon the past and current experience of Indonesia to illustrate issues, challenges and opportunities that potentially would be faced by countries wishing to strengthen their education and training systems. In addition, during the seminar the presenters and participants:

- explored the implications of Indonesia's experience to date in introducing CBT, including valuable insights gained about how educational systems must be reconfigured to increase access to information;

- investigated the potential of several computer-based applications that can help Indonesia meet the critical educational and training challenges it faces;

- assessed the feasibility of using Indonesia's existing communications infrastructure to support the use of information technology; and

- outlined a strategic plan for Indonesia that builds upon the existing communication and clinical training networks and incorporates use of computer-assisted learning to expand the reproductive health training system.

Finally, the seminar documented the key role that recent advances in telecommunication and microcomputing currently can play in changing information flow, knowledge transfer and training.

ReproSystem™

Recent experience gained from our efforts to strengthen both reproductive health training and service delivery systems in Indonesia and other countries has led to a better understanding of the constraints to making training more effective and less costly. **ReproSystem** is a solution designed by JHPIEGO, the Johns Hopkins Applied Physics Laboratory and Tulane University to address these critical constraints. It merges the proven benefits of CBT with recent advances in telecommunications and computing. And, it is based on the belief that ultimately all components of the system—from information transfer to highly interactive, multimedia training—can be designed, delivered, evaluated and continually updated through the information superhighway. ReproSystem provides the mechanism for optimizing use of existing and planned telecommunication systems, including the Internet, to support the delivery and decentralization of technical information (National Academy of Sciences 1995). It consists of communications hardware and a comprehensive set of software applications designed for planning, training and the delivery of reproductive health services. Our goal is to ensure that in the area of reproductive health, the full potential benefits of the **information revolution** are realized by all people of the world—not just those living in developed countries.

Following are brief descriptions of current ReproSystem components. Video clips and a link to ReproLine provide a look at these components and how they work:

- ***ModCal***™—A modified computer-assisted learning system available on CD-ROM. Highly interactive **ModCal** modules are used in conjunction with hands-on clinical practice to provide either self-paced or minimum-guidance learning packages. Participants using **ModCal** gain both the knowledge and motivation they need to complement their new clinical skills. It is anticipated that **ModCal** will multiply the effectiveness of existing staff, cut training costs and ensure transfer of standardized, up-to-date information. Detailed information on the development, testing and used of ModCal is presented in a subsequent paper in this Virtual Seminar Review.

- ***MomCare***™—A computer-based system that extends obstetrical expertise (in the form of simultaneous voice/video/still picture/data/writing capability), which usually is available **only** in referral level facilities, to peripheral hospitals and remote health centers. **MomCare** is a low cost application designed to support emergency obstetrical care, including surgical intervention, distance learning and teleconferencing for acute care problem solving.

- ***ProTrain***™—A computer model designed for policymakers and program managers to project the annual number of trained family planning providers required, as compared to the estimated number of trained providers available. A key aspect of **ProTrain** is the simultaneous modeling of a number of factors that affect the pool of available providers over time, combined with interactive features that allow policymakers to ask "what if" questions.

- ***ReproLine***®—An online or CD-ROM-based service featuring regularly updated information (both text and presentation graphics) on selected reproductive health topics, including family planning. The design and evolution of the ReproLine Internet service is documented in the following paper.

Summary

ReproSystem components provide a mechanism to bridge the reproductive health information gap faced by many nations (ReproLine), improve the quality of clinical training (ModCal) and increase the capability for extending quality medical care to remote areas (MomCare). In addition, ProTrain enables countries to predict more accurately their need for trained reproductive health service providers.

Using existing telecommunication systems most countries can now access up-to-date scientific information, disseminate it locally and cost-effectively meet the heretofore unresolved need for new information. As shown and discussed in this paper, the ReproSystem components represent one example of how advances in technology can be applied to reproductive health training.

Resources

Mayo JS. 1994. Evolving the national information infrastructure: an editorial by the President of AT&T Bell Laboratories. *The Bridge* 24(4): 2.

McIntosh N. 18 April 1995. *State of the Corporation Report.* JHPIEGO Corporation: Baltimore, Maryland.

National Academy of Sciences. 1995. *The global information infrastructure.* A White Paper prepared for the Forum on the Role of Science and Technology in Promoting National Security and Global Stability. Washington, DC. 29–30 March.

Appendix B | Strategic Plan for Strengthening the Reproductive Health Training System

Phase I

During this phase emphasis will be placed on activities in selected portions of the clinical practice training network (used for both training and service delivery):

National Resource Center (NRC) for Training in Reproductive Health

- Create computer learning centers[1] at both existing clinical training sites of the NRC (located in Jakarta and Surabaya).
- Establish **MomCare** work stations[2] at both existing clinical training sites of the NRC.

Because NRC sites have been implemented as "leadership" institutions designed to act to strengthen the entire clinical practice training network, there is no expectation for significant expansion of NRC staff during this phase. The components of **ReproSystem** which would be implemented in NRC sites include:

- **ReproLine™**: This application will be available in learning centers online and requires installation of an internet connection.
- **ModCal**: This application will be available in learning centers initially through CD ROM. By the end of Phase I, a recommendation will be made as to whether **ModCal** should be extended to learning centers throughout the clinical practice training network by CD ROM or through an internet connection. This recommendation will be based upon experimentation with an internet version of one or more **ModCal** courses in the NRC learning centers and, as appropriate, selected PTCs.
- **MomCare**: This application will be available at both NRC clinical sites and will be situated in a quiet area of each site with access to a telephone line.

---

[1] A "computer learning center unit" is defined in this proposal as a room with:

- 4–6 computer stations including: CD ROM drives and head phones
- 1 laser jet printer, 32" VCR/monitor
- Internet connection accessible by all computer stations
- Appropriate furniture (chairs and desks for learners to work at and which afford learners sufficient "privacy" to operate their computer without distraction)

Depending on the size and needs of the institution, from 1–5 units may be needed.

[2] A MomCare work station is defined in this proposal as a comprehensive hardware/software package. Because of the nature of the package and the intent to use this technology for emergency services, clinical problem-solving and specialized clinical training, it should be highly moveable and include:

- A hardware/software package
- Appropriately designed roller cart for easy transport around the out-patient clinic
- Telephone access in all locations desired for use

- **TrainerNews**: The NRC is already developing a newsletter for trainers which is set to be distributed in hardcopy starting in January of 1996. This newsletter will be adapted to an electronic format during this phase and made available on diskette for distribution to learning centers as they are established. A recommendation will be made by the end of Phase I as to whether the newsletter should be extended to learning centers throughout the clinical practice training network as only a hardcopy, a diskette copy or through an internet connection (or some combination of distribution media). This recommendation will be based upon experimentation with diskette and internet versions available in the NRC learning centers and selected PTCs.

Provincial Training Centers (PTCs)

- Create computer learning centers at 2 PTCs associated with each NRC clinical site.
- Establish **MomCare** work stations at 2 PTCs associated with each NRC clinical site.

Because PTC sites are existing clinical training sites within the clinical practice training network, there is no expectation for significant expansion of PTC staff during this phase. The components of **ReproSystem** which would be implemented in PTC sites include:

- **ModCal**: This application will be available in learning centers initially through CD ROM. By the end of Phase I, a recommendation will be made as to whether **ModCal** should be extended to learning centers throughout the clinical practice training network as CD ROM or through an internet connection. This recommendation will be based upon experimentation with an internet version of one or more **ModCal** courses available in the NRC learning centers and, as appropriate, selected PTCs.
- **MomCare**: Depending on the final decision to site (for testing purposes) **MomCare** stations initially at PTC or District Hospital sites. **MomCare** stations will be situated in emergency/ urgent care settings and/or obstetrical units and will require access to a telephone line.
- **TrainerNews**: This will be available in hardcopy and in electronic forms (diskette and internet versions) during Phase I of the pilot test for determining the final medium for publication.

District Hospitals (DHs) With Status as Teaching Facilities in The Clinical Practice Training Network

District hospitals will have only a limited role during Phase I (i.e., potentially used for **MomCare** stations). A decision to involve DHs during Phase I will require an examination of the staffing pattern of emergency and obstetrical services, and the regularity of their experience with cases presenting with complications of labor and delivery.

Phase II

During this phase emphasis will be placed on extending **ReproSystem** components to a larger numbers of facilities within the clinical practice training network including:

Provincial Training Centers (PTCs)

- Create computer learning centers at 5 PTCs associated with each NRC clinical site for a total of 10 PTC sites.
- Establish **MomCare** work stations at a total of 10 PTCs within the clinical training network.

District Hospitals (DHs)

- Create computer learning centers at 50 DHs within the clinical practice training network.
- Establish **MomCare** work stations at a total of 10 DHs within the clinical training network.

Pusdiklat Training Centers

- Create computer learning centers at 6 Pusdiklat Training Centers.

Phase III

During this phase emphasis will be placed on extending **ReproSystem** components to larger numbers of facilities within the clinical practice training network including:

Provincial Training Centers (PTCs)

- Create computer learning centers at the remaining 13 PTCs associated with the NRC clinical sites.
- Establish **MomCare** work stations at the remaining 13 PTCs within the clinical training network.

District Hospitals (DHs)

- Create computer learning centers at 50 DHs within the clinical practice training network.
- Establish **MomCare** work stations at 90 DHs within the clinical training network.

Pusdiklat Training Centers

- Create computer learning centers at 7 Pusdiklat Training Centers.

Phase IV

During this phase emphasis will be placed on extending **ReproSystem** components to all remaining clinical practice training facilities down to and including DHs, and to selected health centers (HCs) used for clinical practice training including:

District Hospitals (DHs)

- Create computer learning centers at 200 DHs within the clinical practice training network.
- Establish **MomCare** work stations at 200 DHs within the clinical training network.

Health Centers (HCs)

- Establish **MomCare** work stations at 50 HCs within the clinical training network.
- Create downsized or ***modified*** computer learning centers[3], which include only 2–4 computer stations, at 50 HCs within the clinical practice training network.

Pusdiklat Training Centers

- Create computer learning centers at 7 Pusdiklat Training Centers.

Phase V

During this phase emphasis will be placed on extending **ReproSystem** components to larger numbers of HCs including:

Health Centers (HCs)

- Establish **MomCare** work stations at 400 HCs within the clinical training network.
- Create downsized computer learning centers, which include only 2–4 computer stations, at 400 HCs within the clinical practice training network.

---

[3] A "***modified*** computer learning center" is defined in this proposal as a room with:

- 2–4 computer stations including: CD Rom drives, head phones
- 1 laser jet printer, 32" VCR/monitor
- Internet connection accessible by all computer stations
- Appropriate furniture (chairs and desks for learners to work at and which afford learners sufficient "privacy" to operate their computer without distraction)

JHPIEGO INFORMATION TECHNOLOGY COSTS SUMMARY

PROTRAIN

Object Code/Line Item	Development Costs (Through 3/31/97)	Projected Annual Recurrent Costs	Projected Field Set-up Costs	Projected Field Recurrent Costs
Salaries & Benefits	$37,100	$2,600	$18,500	$5,700
Consultants	$5,300	$4,200	$5,000	$0
Equipment/Supplies	$0	$500	$5,800	$0
Travel	$5,100	$0	$20,500	$3,700
Other	$0	$300	$200	$500
TOTAL	**$45,000**	**$7,600**	**$50,000**	**$9,900**

Requirements:
Requires 386 personal computer running DOS; w/printer

Cost Assumptions:
Development costs do not include costs incurred by the Futures Group which shared costs equally with JHPIEGO. Equipment/Supplies includes most computer hardware/software items under current definition of supplies per OMB Circular A-21. JHPIEGO annual recurrent costs are for administration and minor revision of system in Baltimore. Field set-up costs based on set-up in one country annually and include cost of local staff support; assumption is that host country hardware requirements are already in place. Projected field recurrent costs include local staff time in support of ongoing system administration.

JHPIEGO INFORMATION TECHNOLOGY COSTS SUMMARY

VIDEO CONFERENCING

Object Code/Line Item	Development Costs (Through 3/31/97)	Future Development Costs (4/1/97-9/30/97)	Projected Annual Recurrent Costs	Projected Field Set-up Costs
Salaries & Benefits	$36,069	$23,424	$32,500	$42,000
Consultants	$1,025	$5,000	$0	$1,200
Equipment	$22,513	$6,000	$2,000	$26,400
Travel	$1,062	$7,234	$0	$24,000
Other	$41,208	$5,889	$0	$48,000
TOTAL	**$101,877**	**$47,547**	**$34,500**	**$141,600**

Requirements:
Requires Pentium personal computer (90mhz or greater) running Windows 95; w/modem

Cost Assumptions:
Equipment/Supplies includes most computer hardware/software items under current definition of supplies per OMB Circular A-21. JHPIEGO annual recurrent costs include 1 full-time position for ongoing technical support. Field Set-up costs based on complete installation costs for single country; no recurrent field costs are anticipated.

JHPIEGO INFORMATION TECHNOLOGY COSTS SUMMARY

MODCAL

Object Code/Line Item	Development Costs (Through 3/31/97)	Projected Annual Recurrent Costs (Production Costs)	Projected Field Set-up Costs	Projected Field Recurrent Costs
Salaries & Benefits	$254,025	$272,216	$46,604	N/A
Consultants	$67,129	$78,000	$1,200	
Equipment	$28,920	$26,250	$3,302	
Travel	$479	$0	$17,453	
Other	$232,121	$210,000	$73,013	
TOTAL	**$582,674**	**$586,466**	**$142,572**	

Requirements:
Requires 486 personal computer running Windows 3.1 or Windows 95; w/CD ROM drive

Cost Assumptions: Equipment/Supplies includes most computer hardware/software items under current definition of supplies per OMB Circular A-21. JHPIEGO annual recurrent (production) costs for content development and technical production based on total annual output of 15 courseware modules. Field set-up costs based on set-up of two sites annually; assumption is that host country hardware requirements are already in place.

Note: JHPIEGO states that the "other" line item above "was an attempt to capture those costs that were born by specific country projects, as not all costs were charged to the ModCal account. Indonesia, Zimbabwe, and to some extent the Philippines and India has some input into ModCal development. These costs, however, would be for the same things as were charged to the ModCal account itself: salaries, fringe benefits, and purchase of equipment and supplies."

JHPIEGO INFORMATION TECHNOLOGY COSTS SUMMARY

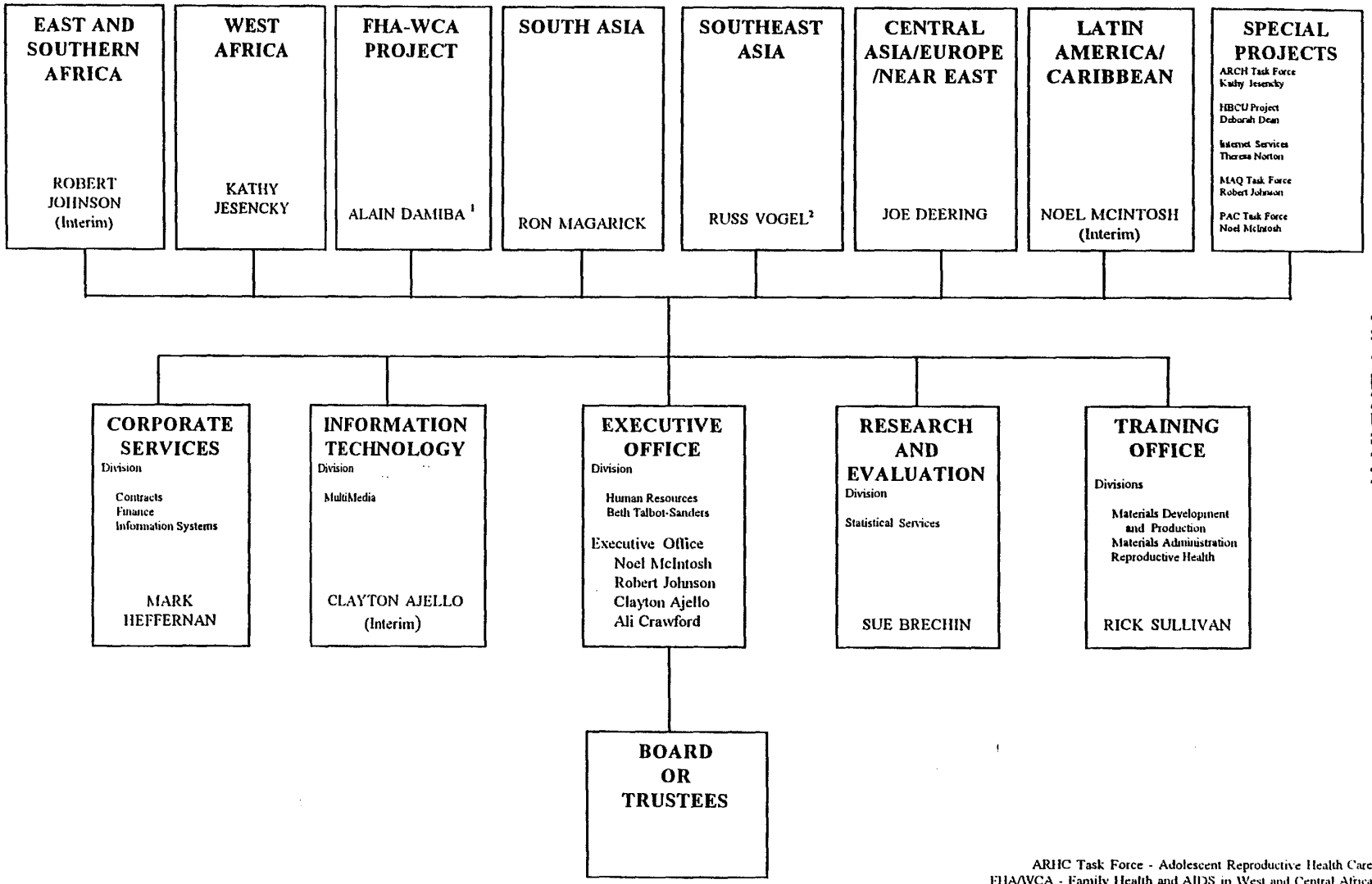
REPROLINE

Object Code/Line Item	Development Costs (Through 3/31/97)	Future Development Costs (4/1/97-9/30/97)	Projected Annual Recurrent Costs	Projected Field Set-up Costs
Salaries & Benefits	$109,900	$20,200	$92,700	N/A
Consultants	$0	$5,500	$11,400	
Equipment	$3,000	$2,600	$5,400	
Travel	$0	$2,100	$3,400	
Other	$0	$1,400	$1,300	
TOTAL	**$112,900**	**$31,800**	**$114,200**	

Requirements:
Requires 486 personal computer running Windows 3.1 or Windows 95, with printer & modem.

Cost Assumption:
Equipment/Supplies includes most hardware/software items under current definition of supplies per OMB Circular A-21. JHPIEGO annual recurrent costs include ongoing system and data administration and maintenance. No significant field set-up or field recurrent costs are anticipated; costs assume that user already has required hardware and internet access.

JHPIEGO CORPORATION ORGANIZATIONAL STRUCTURE



[1] FHA-WCA Director located in Abidjan, Cote d'Ivoire
[2] SEA Director located in Jakarta, Indonesia

ARHC Task Force - Adolescent Reproductive Health Care
FHA/WCA - Family Health and AIDS in West and Central Africa
HBCU - Historically Black Colleges and Universities